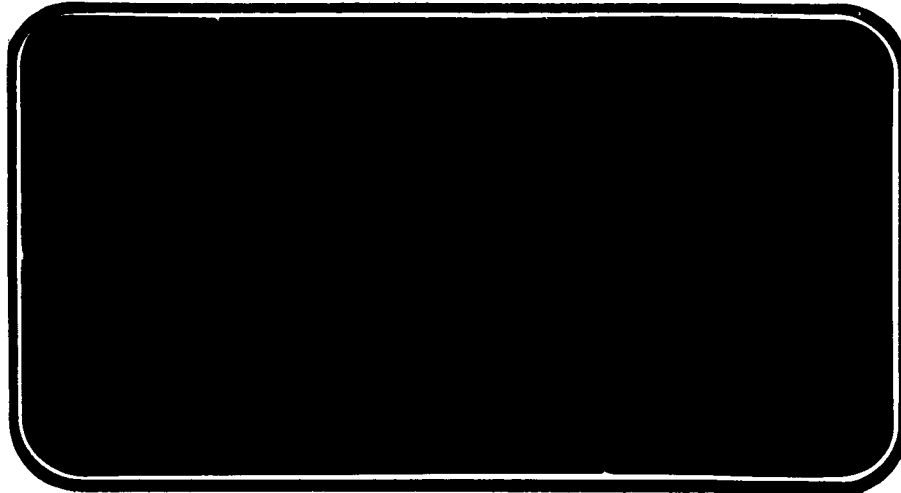




National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058



(NASA-CR-160847) RESULTS OF TEST OA228
USING THE SSV VEHICLE 102 0.10 SCALE
FOREBODY MODEL NO. 57-0 IN THE NAAL LCW
SPEED WIND TUNNEL (Chrysler Corp.) 142 p

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SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT



Data Management SERVICES

HUNTSVILLE ELECTRONICS DIVISION



CHRYSLER
CORPORATION

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RESULTS OF TEST OA228 USING THE SSV
VEHICLE 102 0.10 SCALE FOREBODY MODEL
NO. 57-0 IN THE NAAL LOW SPEED WIND TUNNEL

by

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Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number; NRLAD LSWT 757
NASA Series Number: OA228
Model Number: 57-0
Test Dates: April 30 through May 1, 1976
Occupancy Hours: 23

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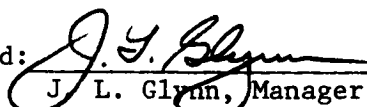
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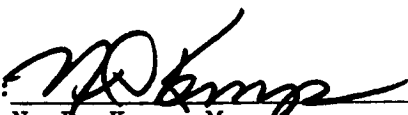
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RESULTS OF TEST OA228 USING THE SSV VEHICLE 102

0.10 SCALE FOREBODY MODEL NO. 57-0 IN THE NAAL

LOW SPEED WIND TUNNEL

by

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ABSTRACT

Experimental aerodynamic investigations were conducted on a sting mounted 0.10 scale representation of the Space Shuttle Vehicle 102 forebody in the Rockwell International NAAL Low Speed Wind Tunnel during the time period from April 30, 1976 to May 1, 1976. NASA designation for this test period was OA228. Facility designation was NAAL 757.

The primary test objective was to resolve differences in air data probe and flight test probe pressure data obtained during wind tunnel tests OA174 and OA224. To accomplish this objective, pressure data were recorded from the orbiter flight test probe and from the left and right air data probes over an angle of attack range of $-6 \leq \alpha \leq 20^\circ$ and an angle of sideslip range of $-5 \leq \beta \leq 5$. Mach numbers of .18 and .25 were investigated. Also recorded were fuselage pressures P1, P5, P6, P10, and P13.

Model parametric variations consisted of testing with the flight test probe on and off, the air data probes on and off, and with the left and right air data probes reversed.

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TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	5
CONFIGURATIONS INVESTIGATED	11
TEST FACILITY DESCRIPTION	14
DATA REDUCTION	15
REFERENCES	20
TABLES	
I. TEST CONDITIONS	21
II. DATASET/RUN NUMBER COLLATION SUMMARY	22
III. MODEL DIMENSIONAL DATA	26
FIGURES	
MODEL	31
DATA	39
APPENDIX	
TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

<u>Figures</u>	<u>Title</u>	<u>Page</u>
1.	Axis Systems	31
2.	Model Sketches	
	a. Orbiter Flight Test Probe	32
	b. Rosemount Air Data Probe	33
	c. Forebody Pressure Orifices	34
	d. Model Pressure Hookup	35
3.	Model Photographs	
	a. NAAL Installation Front View - Configuration B72 C15 PR4 PR7 PR8	36
	b. NAAL Installation Close-up of Air Data Probe PR7	36
	c. NAAL Installation Close-up of Fuselage Contour Before Modification - Air Data Probe PR8	37
	d. NAAL Installation Front View Close-up of Fuselage Contour After Modification - Air Data Probe PR8M	37
	e. NAAL Installation Side View Close-up of Fuselage Contour After Modification - Air Data Probe PR8M	38

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	CONDITIONS VARYING	PLOTTED COEFFICIENTS SCHEDULE	PAGES
4	EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - ALPHA SWEEPS	RN/L	A	1-4
5	EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - BETA SWEEPS	RN/L	B	5-8
6	EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEASUREMENTS - ALPHA SWEEPS	CONFIG.	D	9-12
7	EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEAS. RN/L = 1.27 BETA SWP	CONFIG.	C	13-14
8	EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEAS. RN/L = 1.78 BETA SWP	CONFIG.	C	15-16
9	EFFECT OF SIDE PROBE REVERSAL - ALPHA SWEEPS	CONFIG.	D	17-20
10	EFFECT OF SIDE PROBE REVERSAL - RN/L = 1.27 BETA SWEEPS	CONFIG.	C	21-22
11	EFFECT OF SIDE PROBE REVERSAL - RN/L = 1.73 BETA SWEEPS	CONFIG.	C	23-24
12	FLIGHT TEST PROBE ALPHA CALIBRATION		α VS AF	25-25
13	FLIGHT TEST PROBE BETA CALIBRATION ALPHA = 0		β VS BF	26-26
14	FLIGHT TEST PROBE BETA CALIBRATION ALPHA = 4 AND 10		β VS BF	27-27
15	SIDE PROBE ALPHA CALIBRATIONS		AA VS α	28-29
16	EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE ALPHA CALIBRATION	CONFIG.	AA VS α	30-30
17	EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE RAX CALIBRATION	CONFIG.	RAA VS α	31-31

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	CONDITIONS VARYING	PLOTTED COEFFICIENTS SCHEDULE	PAGES
18	SIDE PROBE RAX CALIBRATION	-	RAA VS α	32-32
19	EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE PRESSURES - ALPHA SWEEPS	CONFIG.	D	33-34
20	EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE PRESSURES - BETA	CONFIG.	C	35-36
21	EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE RAX	CONFIG.	RAA VS α	37-37
22	EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE ALPHA CALIBRATION	CONFIG.	AA VS α	38-38

SCHEDULES OF COEFFICIENTS PLOTTED:

- A) PTFDEC, PSFDEC, PTADEC, PSADEC VS α
- B) PTFDEC, PSFDEC, PTADEC, PSADEC VS β
- C) PTADEC, PSADEC VS β
- D) PTADEC, PSADEC VS α

NOMENCLATURE

<u>Symbol</u>	<u>Mnemonic</u>	<u>Definition</u>
	ACX/PT	ratio of ADS side probe to freestream total pressures, PAC,PT, X = L, R, or A
ADS		air data system
ADP		air data probe
C _{PS1}	CPS1	static pressure coefficient measured by tunnel wall pitot probe number 1, (PS1-P)/Q(PSF)
C _{PS2}	CPS2	static pressure coefficient measured by tunnel wall pitot probe number 2, (PS2-P)/Q(PSF)
C _{PT1}	CPT1	total pressure coefficient measured by tunnel wall pitot probe number 1, (PT1-P)/Q(PSF)
C _{PT2}	CPT2	total pressure coefficient measured by tunnel wall pitot probe number 2, (PT2-P)/Q(PSF)
	DPACA	ADS side probe total pressure decrement
	DPMA	ADS side probe static pressure decrement
DPMA/A	CPMA	PMA pressure coefficient, (PMA-P)/q
DPMF/Q	CPMF	PMF pressure coefficient, (PMF-P)/q
f _{αADS}		ADS side probe α calibration relationship
f _{αF}		flight test probe α calibration relationship
f _{βF}		flight test probe β calibration relationship
FRL		fuselage reference line
FTP		flight test probe
i _{Fα}		FTP incidence to FRL in α plane
i _{Fβ}		FTP incidence to FRL in β plane
M	MACH	Mach number

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Mnemonic</u>	<u>Definition</u>
MACHAX	MACHAX	ADS side probe Mach number, X = L, R, or A
MACHFL	MACHFL	FTP Mach number
n		parameter in iteration to determine MACHAX
N ₁		balance foreward normal force gage output, lbs.
N ₂		balance aft normal force gage output, lbs.
NAAL		North American Akrodynamics Laboratory
PO	P	freestream static pressure, psia
PAC	PAC	ADS side probe center (total) pressure measurement, psia
PAL	PAL	ADS side probe lower pressure measurement, psia
PAU	PAU	ADS side probe upper pressure measurement, psia
PFA	PFA	FTP α measuring pressure measurement, psia
PFB	PFB	FTP β measuring pressure measurement, psia
P _i	Pi	pressure at station i, psia
PMA	PMA	ADS side probe static pressure measurement, psia
PMF	PMF	FTP static pressure, psia
PMF/P	PMF/P	ratio of FTP to freestream static pressures
PMX/P	PMX/P	ratio of ADS side probe to freestream static pressures, X = L, R, or A
PSFDEC	PSFDEC	FTP static pressure decrement $\left[\frac{PMF-P}{PTF-PMF} \right]$
P _{SA}	PSA	ADS probe static pressure, psia
	PSADEC	ADS probe static pressure decrement $\left[\frac{PSA-P}{PTA-PSA} \right]$

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Mnemonic</u>	<u>Definition</u>
P _T	PT	freestream total pressure, psia
P _{TA}	PTA	ADS probe total pressure, psia
	PTADEC	ADS probe total pressure decrement $\frac{PTA-PT}{PTA-PSA}$
P _{TF}	PTF	FTP total pressure measurement, psia
PTFDEC	PTFDEC	FTP total pressure decrement $\frac{PTF-PT}{PTF-PMF}$
P _{TF} /P _T		ratio of FTP to freestream total pressures
	PT27	tunnel settling chamber pressure, psia
P _{W1}	PW1	tunnel south wall static surface pressure 4 inches forward of balance center, psia
P _{W2}	PW2	tunnel south wall static surface pressure 2 inches forward of balance center, psia
P _{W3}	PW3	tunnel south wall static surface pressure at balance center, psia
P _{W4}	PW4	tunnel south wall static surface pressure 2 inches aft of balance center, psia
P ₁	P1	pressure on model surface at X ₀ = 23.5, Y ₀ = 0, psia
P ₅	P5	pressure on model surface at X ₀ = 27.6, Z ₀ = 33.99, left side, psia
P ₆	P6	pressure on model surface at X ₀ = 27.6, Z ₀ = 33.99, right side, psia
P ₁₀	P10	pressure on model surface at X ₀ = 29.6, Y ₀ = 0, bottom, psia
P ₁₃	P13	pressure on model surface at X ₀ = 29.6, Z ₀ = 33.46, psia
q	Q(PSF)	freestream dynamic pressure, psi

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Mnemonic</u>	<u>Definition</u>
q_c	QC	freestream compressible dynamic pressure, psia
q_{cF}	QCF	FTP compressible dynamic pressure, psia
q_{cX}		ADS side probe compressible dynamic pressure, $X = L, R, \text{ or } A$, psia
Q_{cF}/Q_c		ratio of FTP to freestream compressible dynamic pressures, q_{cF}/q_c
Q_{cX}/Q_c		ratio of ADS side probe to freestream compressible dynamic pressures, q_{cX}/q_c , $X = L, R, \text{ or } A$
Q^*F/Q_c		ratio of FTP to freestream dynamic pressures
Q^*X/Q_c		ratio of ADS side probe to freestream dynamic pressures, $X = L, R, \text{ or } A$
RAF		FTP α calibration parameter
RAX		ADS side probe α calibration parameter, $X = L, R, \text{ or } A$
RBF		FTP β calibration parameter
SSV		space shuttle vehicle
T_t	TT	freestream total temperature, $^{\circ}R$
XKB		ratio of q without model blockage correction to q with model blockage correction
Y_1		balance forward side force measurement, lb.
Y_2		balance aft side force measurement, lb.
α	ALPHA or A	freestream angle of attack, deg.
α_{ADS}	AA	angle of attack measured by ADS side probe, deg.
α_{ADS}/α	AA/A	ratio of ADS side probe to freestream angles of attack

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Mnemonic</u>	<u>Definition</u>
α_F	AF	angle of attack measured by FTP, deg.
α_F/α	AF/A	ratio of FTP to freestream angles of attack
α_u		freestream angle of attack uncorrected for sting/ balance deflections, deg.
β	BETA	freestream angle of sideslip, deg.
β_F	BF	angle of sideslip measured by FTP, deg.
β_F/β	BF/B	ratio of FTP to freestream angles of sideslip
β_u		angle of sideslip uncorrected for sting/balance deflections, deg.
$\frac{\partial \alpha}{\partial N_1}$		sting/balance α deflection with respect to N_1 , deg/lb
$\frac{\partial \alpha}{\partial N_2}$		sting/balance α deflection with respect to N_2 , deg/lb
$\frac{\partial \beta}{\partial Y_1}$		sting/balance β deflection with respect to Y_1 , deg/lb
$\frac{\partial \beta}{\partial Y_2}$		sting/balance β deflection with respect to Y_2 , deg/lb
<u>Subscript</u>		<u>Definition</u>
A		average of left and right ADS probes
ADP		air data probe
ADS		air data system
F		flight test probe
L		ADS left probe
R		ADS right probe
S		static condition

NOMENCLATURE (Concluded)

<u>Subscript</u>	<u>Definition</u>
T	total condition
X	ADS side probe left, right, or average value
∞	freestream condition

CONFIGURATIONS INVESTIGATED

The model used for this test period was an 0.10 scale representation of the Rockwell International Space Shuttle Orbiter Preliminary Vehicle 102 Forebody. Orbiter lines were duplicated from the model nose to fuselage station 670. The thermal protection system (TPS) was simulated on the model outer surface to fuselage station 600. The gap between adjacent TPS tiles was 0.01 inch with a gap depth of 0.005 inch.

The 0.20 scale versions of the orbiter air data probes were mounted on the forebody fuselage sidewalls so that the probe static orifice was located at $X_0 = 29.23$, $Z_0 = 32.17$. The air data probes were installed at 0.10 scale standoff distance from the fuselage surface. The right-hand ADP contained both angle of attack sensing pressure orifices while the left-hand ADP contained a static and total pressure orifice.

A 0.36 scale version of the orbiter flight test probe was installed in the orbiter fuselage nose. The flight test probe contained angle of attack, angle of sideslip, total, and static pressure sensing instrumentation.

The model was constructed of a glass reinforced laminate outer skin of 0.5 inch thickness. The glass laminate skins were secured to aluminum plate bulkheads that were welded to a 7.00 inch diameter aluminum sleeve. The aluminum sleeve slipped over and was pinned to a 5.50 inch diameter steel balance block.

Also simulated on the orbiter were the canopy and nose RCS thruster systems.

CONFIGURATIONS INVESTIGATED (Continued)

For this test period, the following letter designations were used to describe the various orbiter forebody configurations:

<u>Symbol</u>	<u>Definition</u>
B ₇₂	Vehicle 102 forebody simulated to Station 670, with TPS tile simulation to Station 600.
C ₁₅	Vehicle 102 canopy simulation
PR ₄	Flight Test Nose Boom
PR ₇	LH air data probe
PR _{7RM}	PR ₇ with modified fuselage attach area
PR _{7R}	PR ₇ mounted on right fuselage
PR ₈	RH air data probe
PR _{8LM}	PR ₈ with modified fuselage attach area
PR _{8L}	PR ₈ mounted on left fuselage

The forebody flight test probe, air data probes, and surface pressure instrumentation was located as indicated below:

<u>Pressure</u>	<u>Location</u>
PAC	Left-hand air data probe total pressure orifice
PAL	Right-hand air data probe lower alpha pressure orifice
PAU	Right-hand air data probe upper alpha pressure orifice
PFA	Flight test probe alpha pressure orifice
PFB	Flight test probe beta pressure orifice
PMA	Left-hand air data probe static pressure orifice
PMF	Flight test probe static pressure orifice

CONFIGURATIONS INVESTIGATED (Concluded)

<u>Pressure</u>	<u>Location</u>
PTF	Flight test probe total pressure orifice
P1	$\angle$ forebody surface pressure orifice $X_o = 23.5$
P5	Left-hand forebody surface pressure orifice $X_o = 27.6, Z = 33.99$
P6	Right-hand forebody surface pressure orifice $X_o = 27.6, Z = 33.99$
P10	Lower $\angle$ forebody surface pressure orifice $X_o = 29.6$
P13	Left-hand forebody surface pressure orifice $X_o = 29.6, Z = 33.46$

Two pitot static probes were mounted in the tunnel. Probe number 1 (measuring P_{T1} and P_{S1}) was in line with the nose probe static pressure orifice on the left side of the model. Probe number 2 (measuring P_{T2} and P_{S2}) was in line with the right ADS side probe static pressure orifice on the right side of the model. Each probe was $2/3$ of the available distance between the model and tunnel wall.

Four static pressures (P_{W1} , P_{W2} , P_{W3} , and P_{W4}) were measured on the tunnel south wall. P_{W1} was 4 inches forward of the balance center. P_{W2} was 2 inches forward of the balance center. P_{W3} was in line with the balance center and P_{W4} was 2 inches aft of the balance center. The vertical locations of these pressures was on the same height as the balance center.

TEST FACILITY DESCRIPTION

North American Aerodynamics Laboratory (NAAL) 7.75 x 11-foot Wind Tunnel is a continuous flow, closed circuit, single return tunnel capable of speeds up to 200 miles per hour.

The test section is vented to atmospheric pressure and is 7.75 x 11 feet wide and 12 feet long. Power is supplied by a 1250-horsepower nacelle-mounted synchronous motor driving a 19-foot, seven-blade, laminated birch propeller. Airspeed is controlled by using a magnetic clutch to vary the degree of coupling between the motor and propeller. Turbulence is minimized by a damping screen and a honeycomb section in the settling chamber upstream from the contraction cone (ratio 7.53 to 1).

Tests may be conducted using a variety of mounting systems: single strut, double strut, sting strut, reflection plane, cable suspension, or two-dimensional wall. Aerodynamic data may be measured by a planar type external balance system or sting-mounted internal balances. An Astrodata Automatic Data Acquisition System collects, multiplexes, digitizes, and records on magnetic tape 50 channels of force or pressure data or both. Data are then reduced and plotted using automatic data processing equipment and an automatic digital plotter.

The NAAL Wind Tunnel has been operating since June 1943. Calibrations are available over a wide range of test conditions.

DATA REDUCTION

The aerodynamic pressure data presented in this report were measured by Statham differential type pressure transducers installed as illustrated in Figure 2d.

Model angles of attack and sideslip were corrected for sting and balance deflections:

$$\alpha = \alpha_u + N_1 \left(\frac{\partial \alpha}{\partial N_1} \right) + N_2 \left(\frac{\partial \alpha}{\partial N_2} \right), \text{ deg.}$$

$$\beta = \beta_u + Y_1 \left(\frac{\partial \beta}{\partial Y_1} \right) + Y_2 \left(\frac{\partial \beta}{\partial Y_2} \right), \text{ deg.}$$

Freestream dynamic pressure was corrected for tunnel blockage effects. A blockage correction factor was calculated as:

$$XKB = \frac{q \text{ without blockage correction}}{q \text{ with blockage correction}}$$

This correction consists of solid and wake blockage calculated using procedures given in Reference 6.

Flight test probe pressures (datasets 1 through 16) were reduced to probe measured angles of attack and sideslip using calibration factors given in Reference 4 in an iterative digital computer routine, as follows:

$$\alpha_F = f_{\alpha_F}(\text{RAF}, \text{MACHFL}) - i_{F\alpha} = \text{AF}$$

$$\beta_F = f_{\beta_F}(\text{REF}, \text{MACHFL}) - i_{F\beta} = \text{BF}$$

where:

$$\text{RAF} = \frac{P_{FA} - P_{MF}}{P_{TF} - P_{MF}}$$

DATA REDUCTION (Continued)

$$REF = \frac{P_{TF} - P_{MF}}{P_{TF} - P_{MF}}$$

$$MACHFL = \sqrt{5 \left[\left(\frac{P}{P_T} \right)^{-2/7} - 1 \right]}$$

$$i_{F\alpha} = \begin{array}{l} \text{probe incidence to FRL in } \alpha \text{ plane} \\ 5.00^\circ \end{array}$$

$$i_{F\beta} = \begin{array}{l} \text{probe incidence to FRL in } \beta \text{ plane} \\ -0.06^\circ \end{array}$$

$$f_{\alpha F} = \begin{array}{l} \text{relationship between } \alpha_F \text{ and RAF varying as a} \\ \text{function of } \beta_F \text{ and Mach number; results of} \\ \text{Rosemount Corp. calibration of the flight test} \\ \text{probe as given in Reference 4; used in Dataman} \\ \text{computer routine which simultaneously solved } \alpha_F \\ \text{and } \beta_F \text{ by first interpolating the calibration} \\ \text{to the appropriate Mach no., then used RAF and} \\ \text{f}_{\alpha F} \text{ in conjunction with REF and f}_{\beta F} \text{ in an iterative} \\ \text{process to converge on a solution for } \alpha_F \text{ and } \beta_F \end{array}$$

$$f_{\beta F} = \begin{array}{l} \text{relationship between } \beta_F \text{ and REF varying as a} \\ \text{function } \alpha_F \text{ and Mach number; results of Rosemount} \\ \text{Corp. calibration of the flight test probe; used} \\ \text{in conjunction with f}_{\alpha F} \text{ as described above} \end{array}$$

Additional flight test probe parameters calculated were:

$$PTFDEC = \frac{P_{TF} - P_T}{P_{TF} - P_{MF}}$$

$$PSFDEC = \frac{P_{MF} - P}{P_{TF} - P_{MF}}$$

$$q_c = P \left[\left(1 + \frac{M^2}{5} \right)^{7/2} - 1 \right]$$

$$Q^*F/QC = \frac{P_{TF} - P}{q_c}$$

DATA REDUCTION (Continued)

$$QCF/QC = \frac{P_{TF} - PMF}{q_c}$$

$$AF/A = \frac{\alpha F}{\alpha}$$

$$BF/B = \frac{\beta F}{\beta}$$

$$PTF/PT = \frac{P_{TF}}{P_T}$$

$$PMF/P = \frac{PMF}{P}$$

Air data system pressures were also reduced to probe measured angle of attack. Pressures measured by the right and left probes were used together in one of the following ways:

- 1) Data obtained from α - sweeps at $\beta = 0^\circ$ (datasets 1, 5, 9, 10, 17, 21, 25, 29, 33, 34):

left and right probe pressures were assumed to be in identical flow fields and their pressures were used to calculate average angles of attack and parameters in the equations given below.

- 2) Data obtained from β - sweeps, β - reversal method (datasets 2, 3, 4, 6, 7, 8, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 30, 31, 32, 35, 36, 37):

Data were interpolated versus β and Mach no. to even values. Positive β data from the left probe was matched with negative β data from the right probe to create left probe data and vice-versa. These created left and right probe pressures were used in the equations given below.

- 3) Data obtained from configurations with right and left probes reversed (datasets 25 through 33) were matched with data obtained from corresponding configurations with the probes in their original locations (datasets 17 through 24) after both groups of data were interpolated. These pressures were used in the equations given below.

DATA REDUCTION (Continued)

The third method described above provided a redundant set of results, for the datasets where it was applied, and can serve as a check on model and tunnel symmetry.

Air data system pressures were reduced to probe α using the calibration given in Reference 5 in an iterative digital computer routine as follows:

$$\alpha_{ADS_X} = f_{\alpha_{ADS}} (RAX, MACHAX) = AA$$

$$MACHAX = \sqrt{5 \left[\left(\frac{PAC}{PMA \cos^n \alpha_{ADS}} \right)^{2/7} - 1 \right]}$$

$$n = .0077386 - .776779 MACHAX + 4.28112 MACHAX^2 - 2.52222 MACHAX^3 + \alpha_{ADS_X} [.0121329 - .0542857 MACHAX + .0488571 MACHAX^2]$$

where:

$$RAX = \frac{PAL - PAU}{PAC - \frac{1}{2} (PAL + PAU)}$$

$f_{\alpha_{ADS}}$ = relationship between α , MACHAX, and probe pressures determined by calibration, solution determined by table look-up computer routine using linear interpolation on calibration values; calibration curves were first interpolated versus Mach no.; detailed calibration information is given in Reference 5.

X = can be either L or R to indicate left or right probe, respectively, depending on which side the pressures used represent. When the average of left and right pressures is used, as in α - sweeps at $\beta = 0$, X = A to indicate average.

DATA REDUCTION (Concluded)

Additional side probe calculations were:

$$DPACAX = \frac{PAC - PT}{PAC - PMA}$$

$$DFMAX = \frac{PMA - P}{PAC - PMA}$$

$$q_{cx} = P \left[\left(1 + \frac{MACHAX^2}{5} \right)^{7/2} - 1 \right]$$

$$Q^*X/Q = \frac{PAC - P}{q_{cx}}$$

$$QCX/QC = \frac{PAC - PMA}{q_{cx}}$$

$$ACX/PT = \frac{PAC}{PT}$$

$$PMX/P = \frac{PMA}{P}$$

$$AX/A = \frac{\alpha_{ADSX}}{\alpha}$$

Again, X can be either L, R, or A to indicate left, right, or average depending on which side of the model pressures used in the equations is represented. Averages were calculated as half the sum of corresponding left and right parameters for data with both left and right parameters.

REFERENCES

1. T. J. Dziubala, R. R. Burrows, and J. Morroquin, "Results of Tests using a 0.36-Scale Model (76-0) of the Space Shuttle Vehicle Orbiter in the NASA/Ames Research Center 40 x 80-Foot Subsonic Wind Tunnel (OA174)," DMS-DR-2302, to be published.
2. V. Esparza, and D. E. Thornton, "Calibration Results of the Baseline Air Data Probes at the Langley 16-Foot Transonic Wind Tunnel using 0.10-Scale Orbiter Forebody Model 102 Lines (Prelim.) (OA224)," DMS-DR-2329, to be published.
3. R. C. Mennell, "Pretest Information for Test OA228 of the 0.10-Scale (57-0) Orbiter Forebody Model in the Rockwell International NAAL Low Speed Wind Tunnel," Rockwell Report SD76-SH-0118, May 13, 1976.
4. "Recalibration of 0.36-Scale Model of the 92AF Flight Test Air Data Boom for use Ahead of a 0.36-Scale Model of the Space Shuttle Orbiter," Rosemount Report 117525, November 21, 1975.
5. "Transonic Static Pressure Calibration of 0.2-Scale Wind Tunnel Model 00859-0109 of Rosemount Model 859P Air Data Sensor," Rosemount Report 17616; Revision A, January 31, 1976
6. Alan Pope and John J. Harper, Low-Speed Wind Tunnel Testing, John Wiley & Sons, Inc., New York, 1966

TABLE I.

[illegible]

TABLE II.

TEST: OA228 - NAAL 757

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 6/1/76

DATA SET IDENTIFIER		CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
			α	β													
REF-#01		B72C5TR4R7PRB	A	O												.13	.25
02			O	F												1	
03			A													2	
04			10	1												3	
05			A	O												4	
06			O	F												5	
07			A													6	
08			10	1												7	
09			A	O												8	
10			1	1												9	
11			O	F												10	
12			A													11	
13			10													12	
14			O													13	
15			A													14	
16			10	1												15	
17		B72C5TR7PRB	A	O												16	
18			O	F												17	
																18	

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

α OR β	COEFFICIENTS	(DVARJ)	(C, AR (2)	(ICV
SCHEDULES	$\alpha(A) = -5, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16, 20, 10, 0$	$\beta(F) = -5, -2, 0, 2, 5, 10$		
	* C, D, F COEFFICIENT SCHEDULE -- SEE PAGE 25			

TABLE II. (Continued)

TEST: 0A223-NAAAL 757										DATE: 6/1/76													
DATA SET/RUN NUMBER COLLATION SUMMARY																							
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS					
				α β																			
AFL*19		B72C5PR7PR8		4 F												18 25							
20				10 Y												19							
21				A O												20							
22				O F												21							
23				4 Y												22							
24				10 Y												23							
25		B72C5PR7RPR8		A O												24							
26				O F												25							
27				4 Y												26							
28				10 Y												27							
29				A O												28							
30				O F												29							
31				4 Y												30							
32				10 Y												31							
33				A O												32							
34		B72C5PR7RPR8		Y Y												33							
35				O F												34							
36				4 Y												35							
																36							
										TEST RUN NUMBERS													

α OR β SCHEDULES
 $\alpha(A) = -5, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16, 20, 10, 0$
 $\beta(F) = -5, -2, 0, 2, 5, 10$

TABLE II. (Continued)

TEST : OA22B - NAAL 757										DATE : 6/1/76										DATA SET/RUN NUMBER COLLATION SUMMARY									
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS											
				α β																									
RFL #37 B7C5 RTRM REXM				ID F														.18 .25											
38 B72 C15				A O														37											
39				O F														38											
40				A I														39											
41				D I														40											
42				A O												42		41											
43				O F												43													
44		I		A I												44													
45				D I												45													
TEST RUN NUMBERS																													

TABLE II. (Concluded)

Data Sets	INDEPENDENT VARIABLES		Coefficients									
	1st	2nd	1	2	3	4	5	6	7	8	9	10
RFLC01 to RFLC45	MACH	ALPHA/BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
RFLD01 to RFLD45	MACH	ALPHA/BETA	P0	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
RFLF01 to RFLF37	MACH	ALPHA/BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF	

TABLE III. MODEL DIMENSIONAL DATA

MODEL COMPONENT: B₇₂

GENERAL DESCRIPTION: Forebody, tiled surface

MODEL SCALE: 0.100

DRAWING NUMBER: SS-A01612

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	747.0	74.70
Max Width	212.0	21.20
Max Depth	226.50	22.65
Fineness Ratio (Length/Max.Width)	3.524	3.524
Area - Ft ²		
Max. Cross-Sectional	330.30	3.303

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: C₁₅
 GENERAL DESCRIPTION: Canopy
 MODEL SCALE: 0.100
 DRAWING NUMBER: SS-A01612

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	237.0	23.70
Max Width	194.0	19.40
Max Depth	58.80	5.88
Fineness Ratio		
Area - Ft ²		
Max. Cross-Sectional	45.60	0.456

TABLE III. MODEL DIMENSIONAL DATA

MODEL COMPONENT: PR_4

GENERAL DESCRIPTION: Flight Test Nose Boom

MODEL SCALE: 0.360 Nose boom and 0.100 nose boom adapter

DRAWING NUMBER: SS-A01664

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Overall Length, along centerline to Sta. $X_0 = 23.500$ (In.)	218.65	21.865
Max. Dia., (Boom), In.	2.0	0.72
Max. Dia., (Boom Adapter), In.	8.75	0.875
Angle of Incidence, Deg.	- 5.0	- 5.0
Area - In. ²		
Max. Circular Cross-Sectional (Boom)	12.75	1.629
Max. Circular Cross-Sectional (Boom Adapter)	240.5	2.405

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: PR₇

GENERAL DESCRIPTION: Left Hand Air Data Probe

MODEL SCALE: 0.200

DRAWING NUMBER: SS-A01614, Rosemount 00856-1913, 00859-0108

Dimensions are from measurements of the probe.

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length (Probe tip to sensor base), In.	10.90	2.180
Max. Length, In.	14.385	2.877
Max Dia., In.	1.000	0.200
Max Height, In.	7.250	1.450
Height, TPS surface to probe center-line, In.	4.975	0.995
Area - In. ²		
Max. Cross-Sectional (Probe)	0.785	0.0314

TABLE III. MODEL DIMENSIONAL DATA (Concluded)

MODEL COMPONENT: PR₈

GENERAL DESCRIPTION: Right Hand Air Data Probe

MODEL SCALE: 0.200

DRAWING NUMBER: SS-A01614

Dimensional Data to be supplied later.

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length (Probe tip to sensor base), In.	10.90	2.180
Max Length, In.	14.385	2.877
Max Dia., In.	1.000	0.200
Max. Height, In.	7.250	1.450
Height, TPS surface to probe center-line, In.	4.975	0.995
Area - In. ²		
Max. Cross-Sectional (Probe)	0.785	0.0314

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

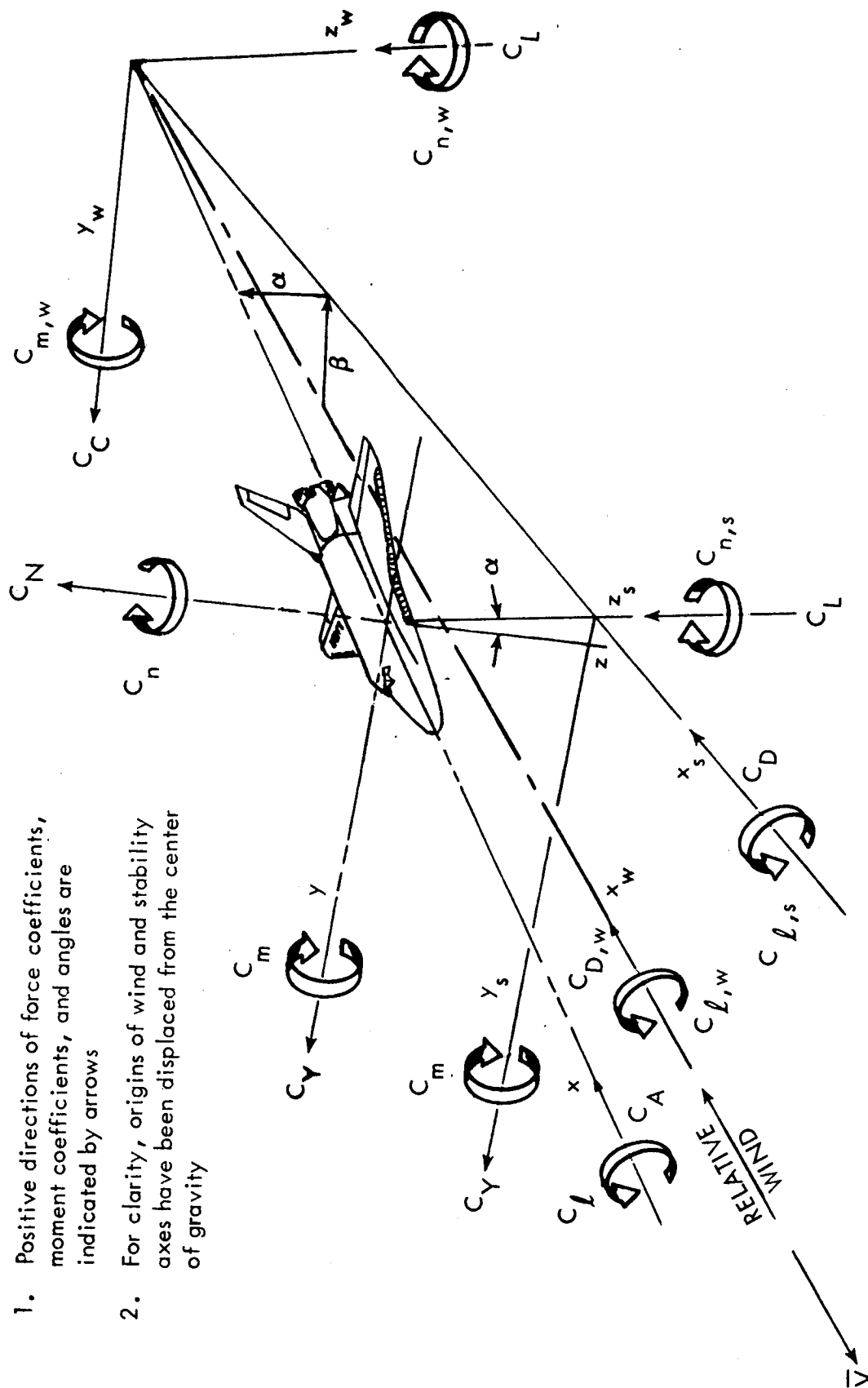
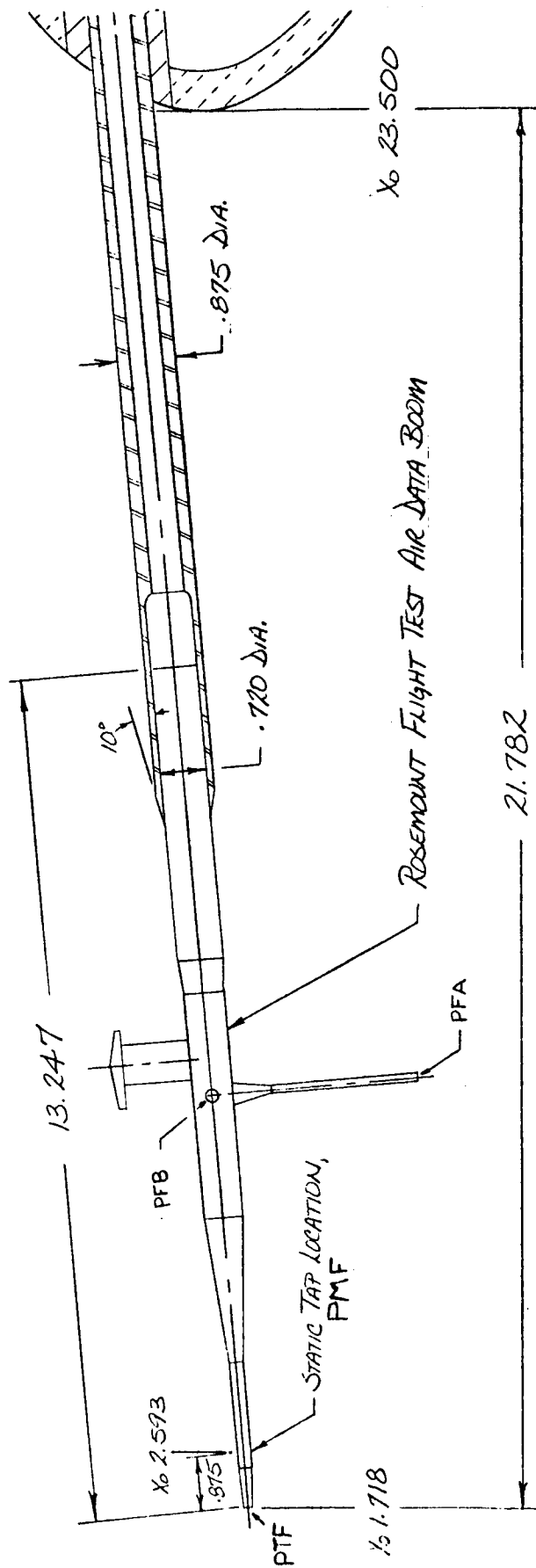
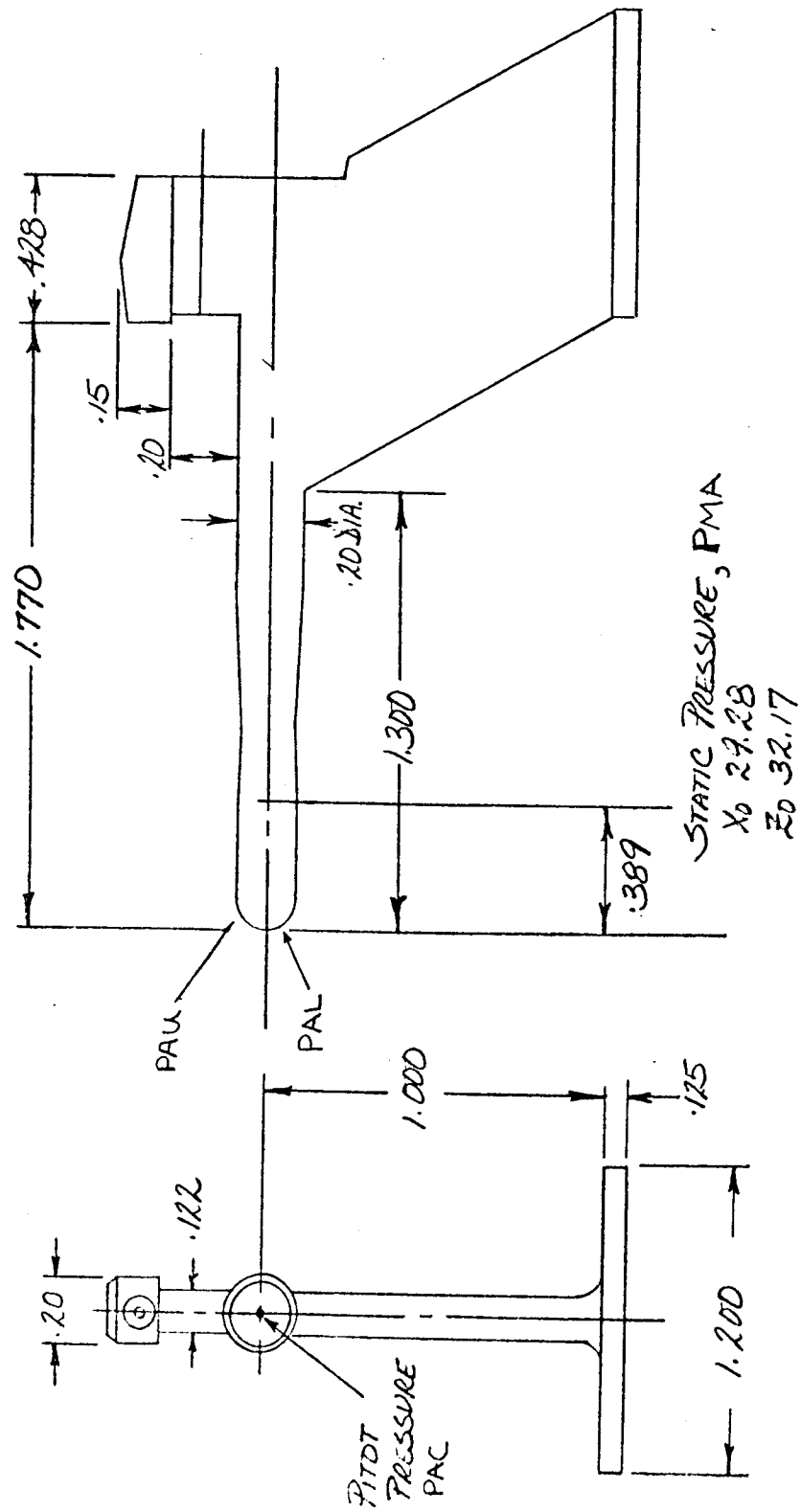


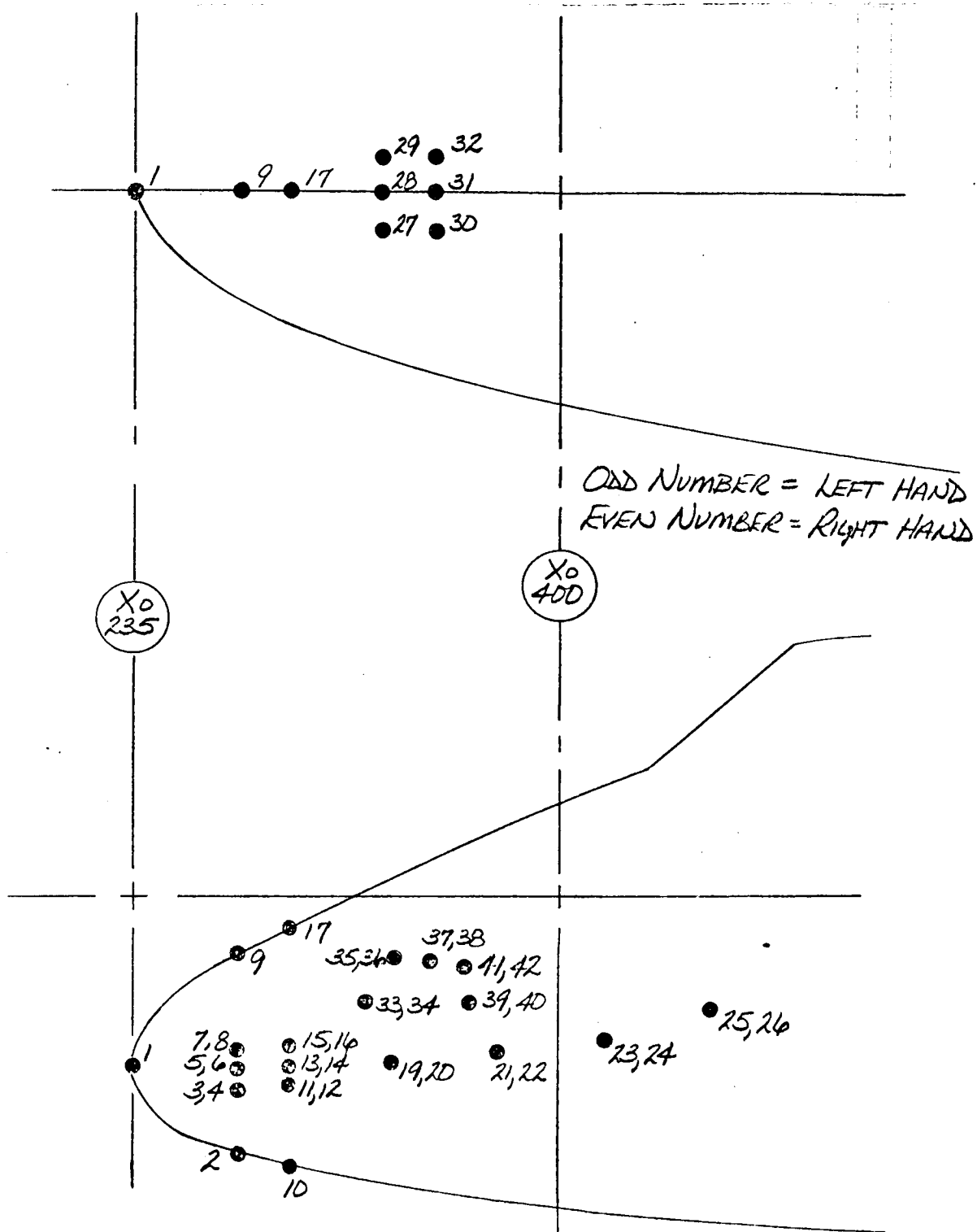
Figure 1. Axis systems



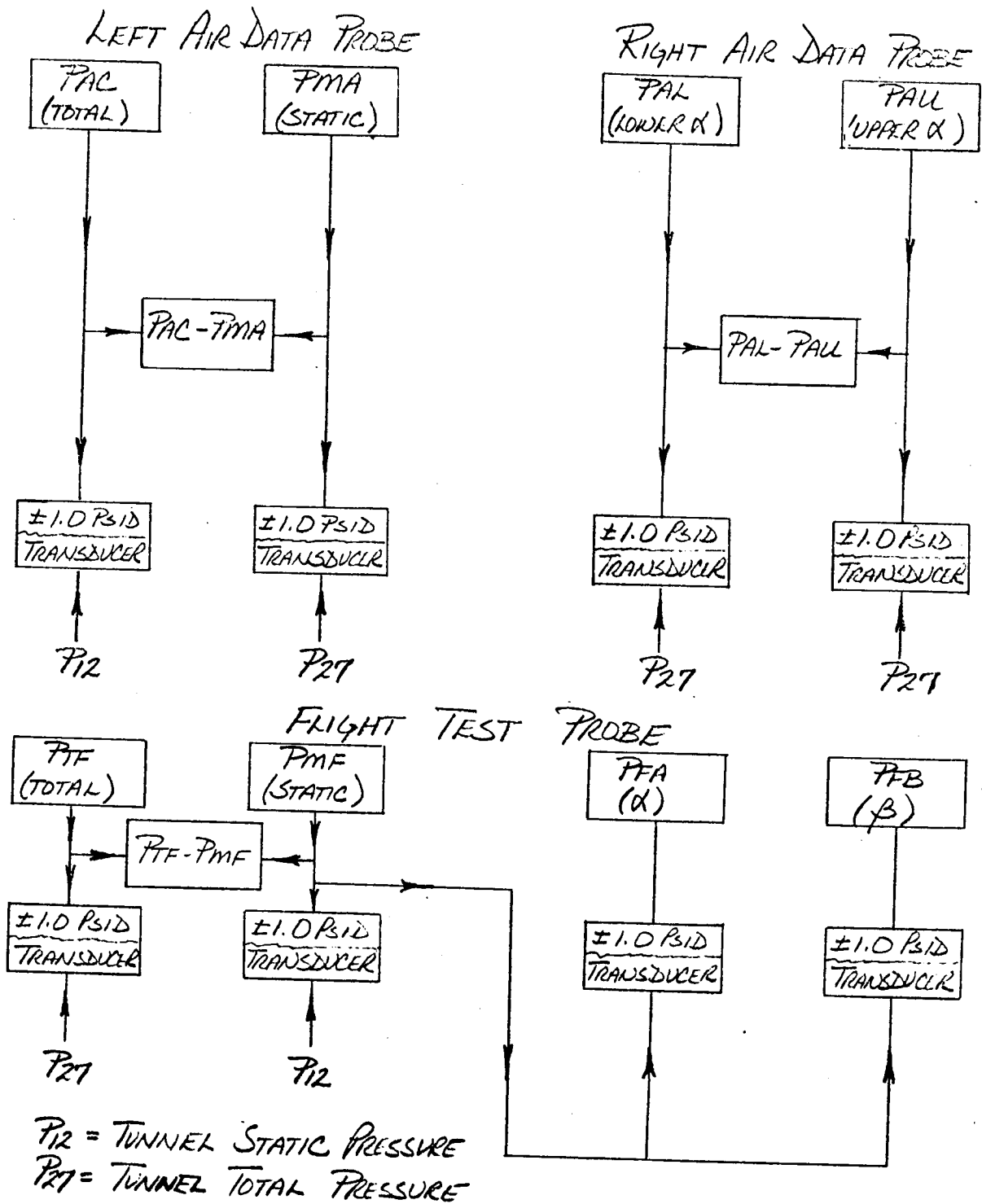
a. Orbiter Flight Test Probe
Figure 2. Model sketches.



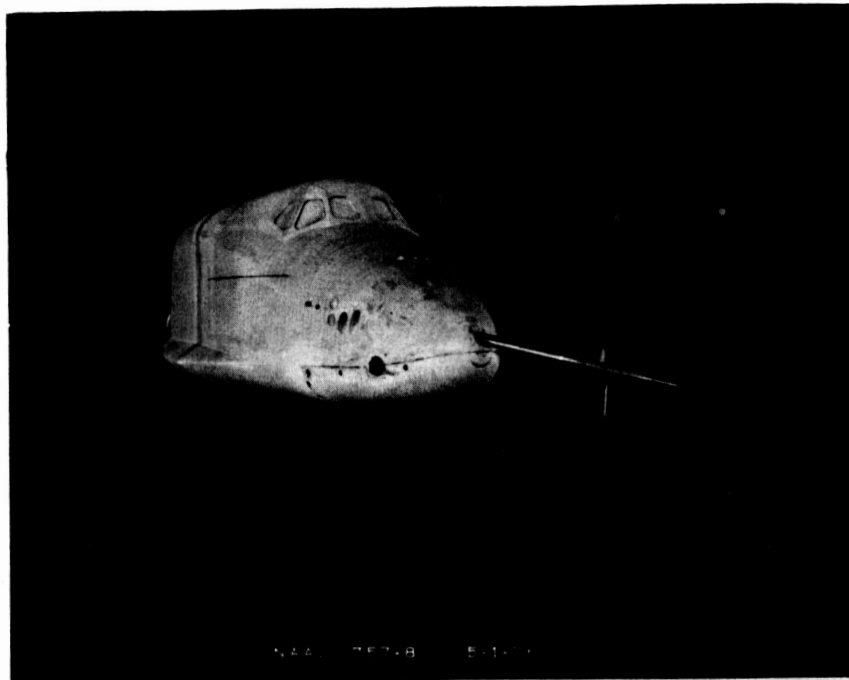
b. Rosemount Air Data Probe
Figure 2. Continued.



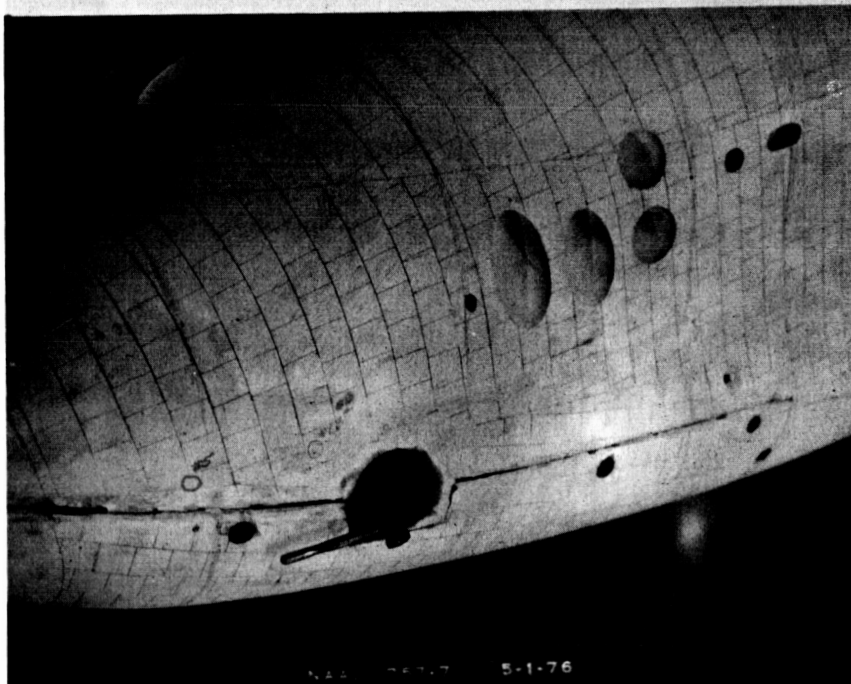
c. Forebody Pressure Orifices
Figure 2. Continued.



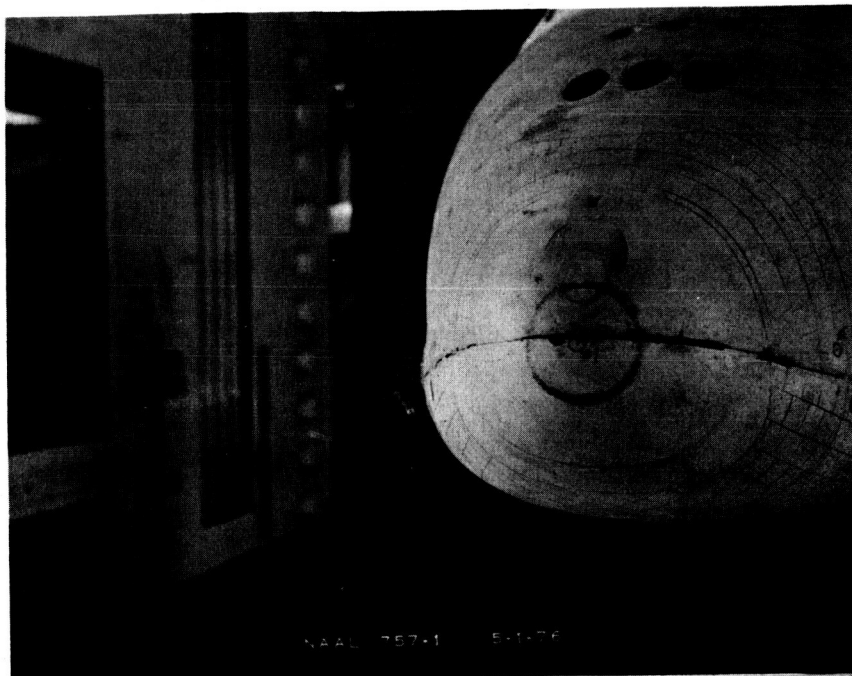
d. Model Pressure Hookup
Figure 2. Concluded.



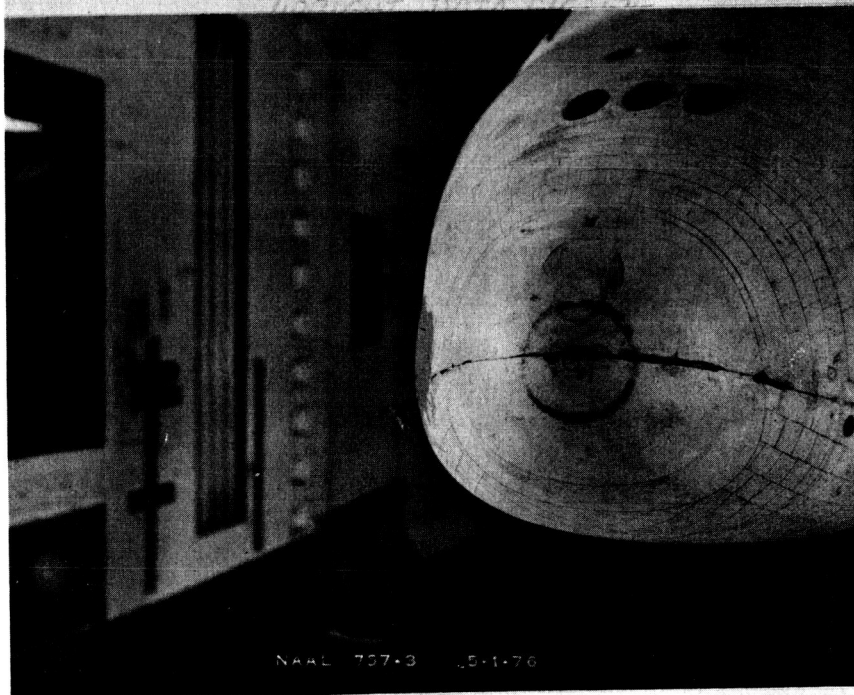
a. NAAL Installation Front View - Configuration B₇₂ C₁₅ PR₄ PR₇ PR₈



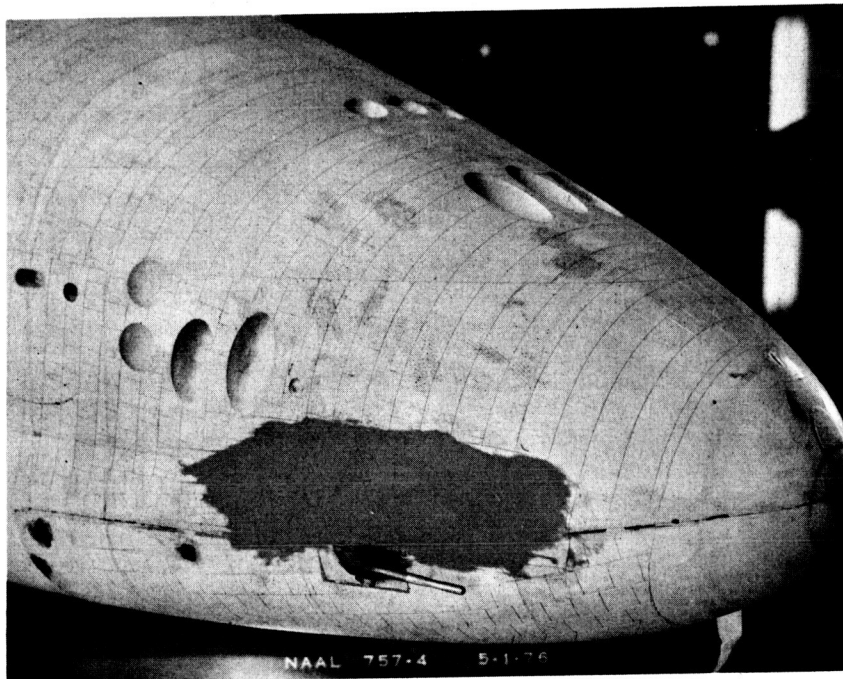
b. NAAL Installation Close-up of Air Data Probe PR₇
Figure 3. Model photographs.



c. NAAL Installation Close-up of Fuselage Contour
Before Modification - Air Data Probe PRg



i. NAAL Installation Front View Close-up of Fuselage
Contour After Modification - Air Data Probe PRgM
Figure 3. Continued.



e. NAAL Installation Side View Close-up of Fuselage
Contour After Modification - Air Data Probe PR_{8M}
Figure 3. Concluded.

DATA FIGURES

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DATA SET SYMBOL		CONFIGURATION		BETA	RN/L	REFERENCE INFORMATION	
QFL001	○	0A228	B72C15PR4 PR7 PR8	.000	1.270	SREF	2690.0000 SQ.FT.
QFL010	□	0A228	B72C15PR4 PR7 PR8	.000	1.780	LREF	474.8100 IN.
						BREF	936.6800 IN.
						XMRP	1076.6800 IN. XO
						YMRP	.0000 IN. YO
						ZMRP	375.0000 IN. ZO
						SCALE	1000

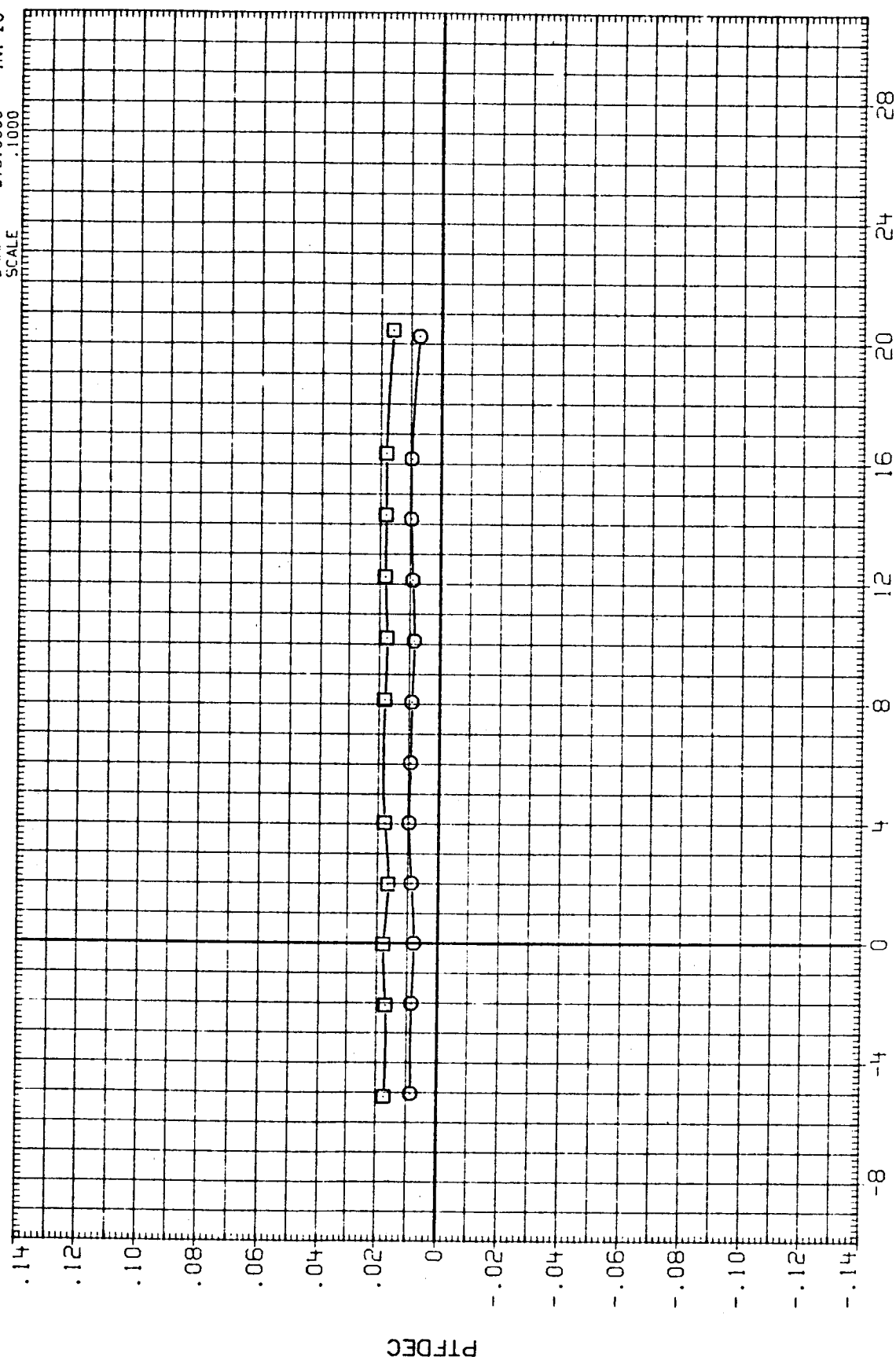


FIG 4 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - ALPHA SWEEPS

DATA SET SYMBOL	CONFIGURATION	BETA	RN/L	REFERENCE INFORMATION
QFL001	872C15PR4 PR7 PR8	.000	1.270	SREF 2690.0000 SQ.FT.
QFL010	872C15PR4 PR7 PR8	.003	1.780	LREF 474.8100 IN.
				BREF 936.6800 IN.
				XMRP 1076.6800 IN. X0
				YMRP .0000 IN. Y0
				ZMRP 375.0000 IN. Z0
				SCALE .1000

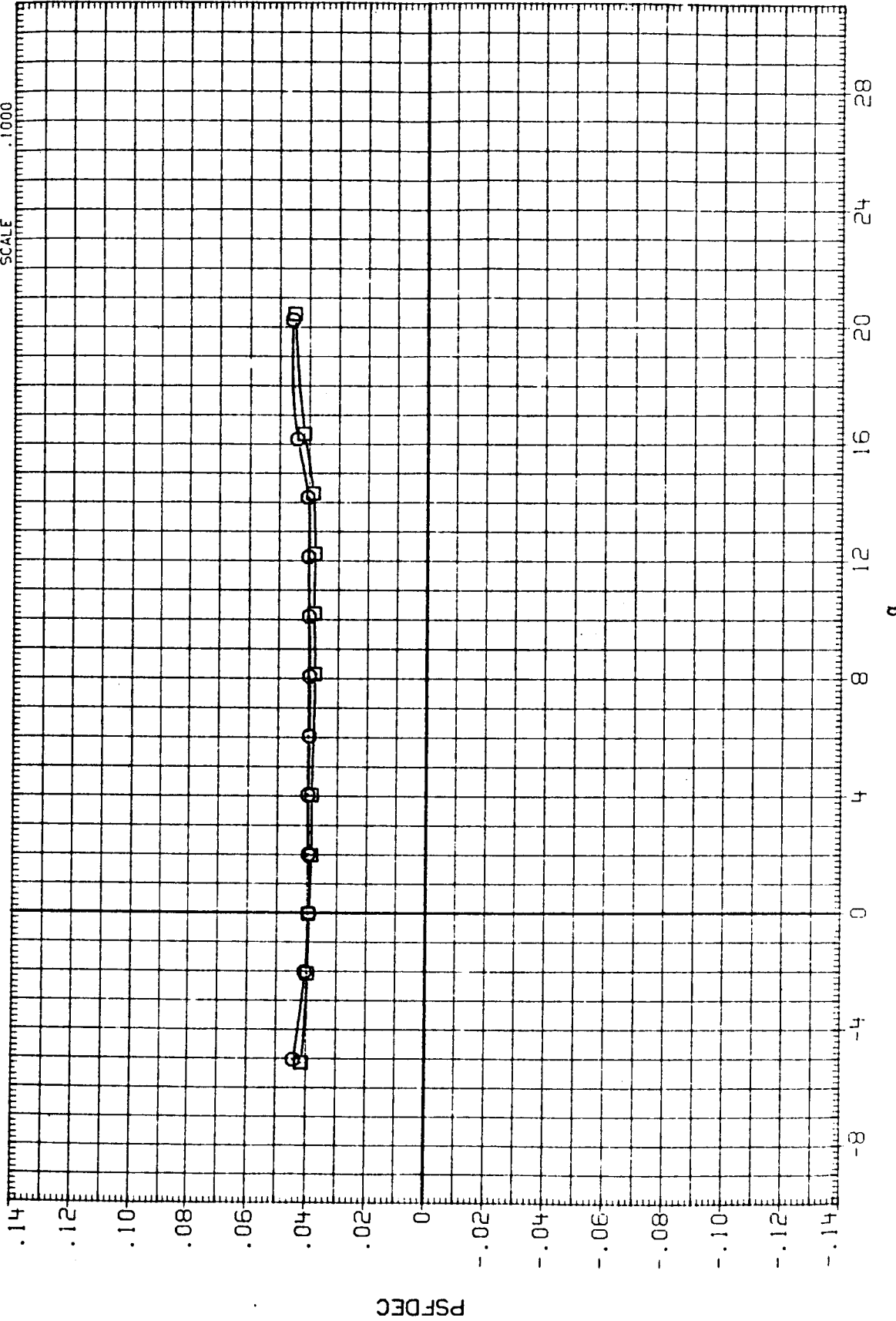


FIG 4 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - ALPHA SWEEPS

(A) MACH = .18

DATA SET SYMBOL		CONFIGURATION		BETA	RN/L	REFERENCE INFORMATION	
QFLO01	OA228	B72C15PR4	PR7 PR8	.000	1.270	SREF	2690.0000 SQ.FT.
OFL010	OA228	B72C15PR4	PK7 PR8	.000	1.780	LREF	474.8100 IN.
						BREF	936.6800 IN.
						XMRP	1076.6800 IN. X0
						YMRP	.0000 IN. Y0
						ZMRP	375.0000 IN. Z0
						SCALE	.1000

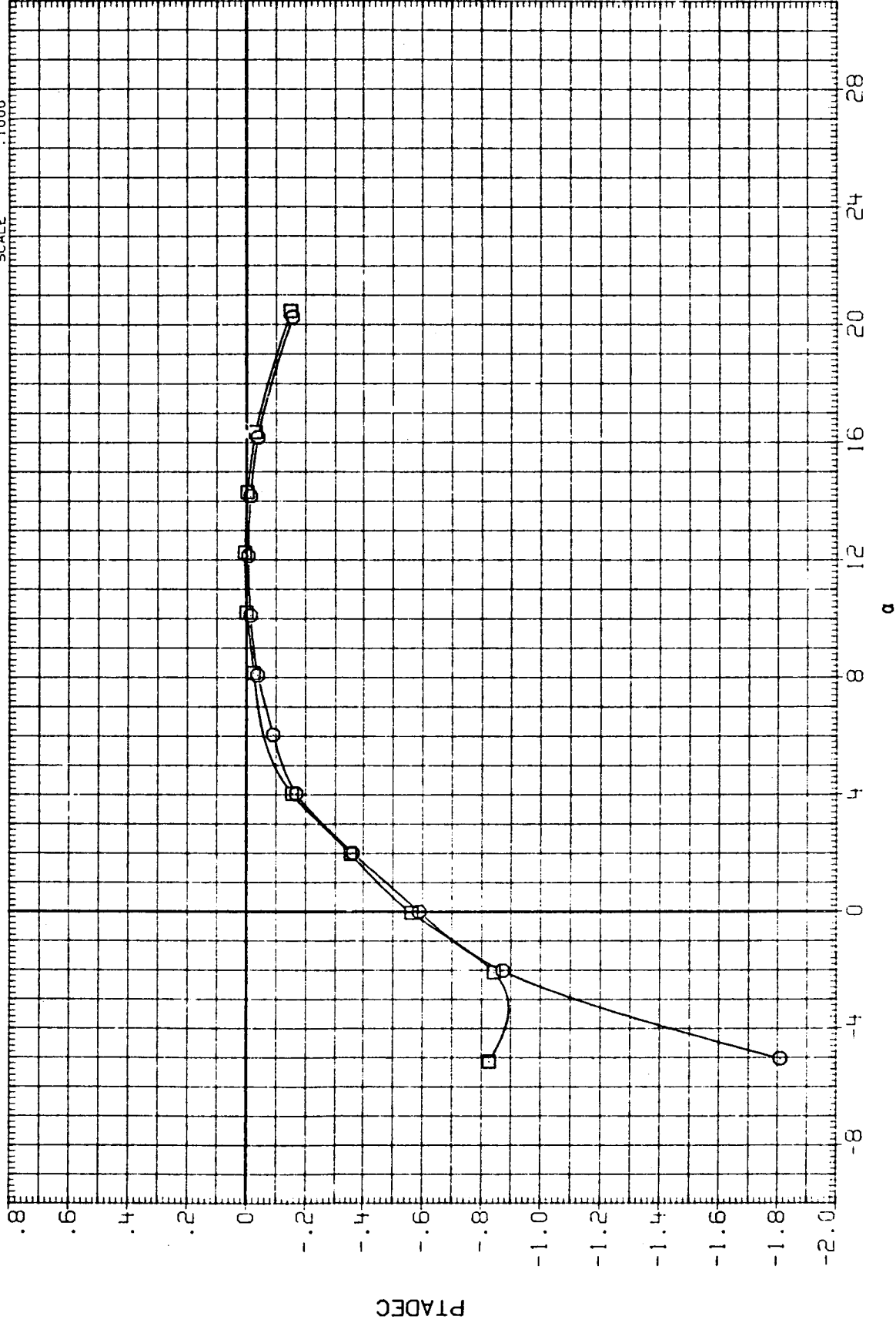


FIG 4 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - ALPHA SWEEPS

DATA SET SYMBOL		CONFIGURATION		PROBES STANDARD		BETA	RN/L	REFERENCE INFORMATION	
OFL001	○	0A228	B72C15PR4 PR7 PR8	PROBES STANDARD	.000	1.270	SREF	2690.0000	50.FT.
OFL010	□	0A228	B72C15PR4 PR7 PR8	PROBES STANDARD	.000	1.780	LREF	474.8100	IN.
							BREF	936.6800	IN.
							XMRP	1076.6800	IN. X0
							YMRP	.0000	IN. Y0
							ZMRP	375.0000	IN. Z0
							SCALE	.1000	

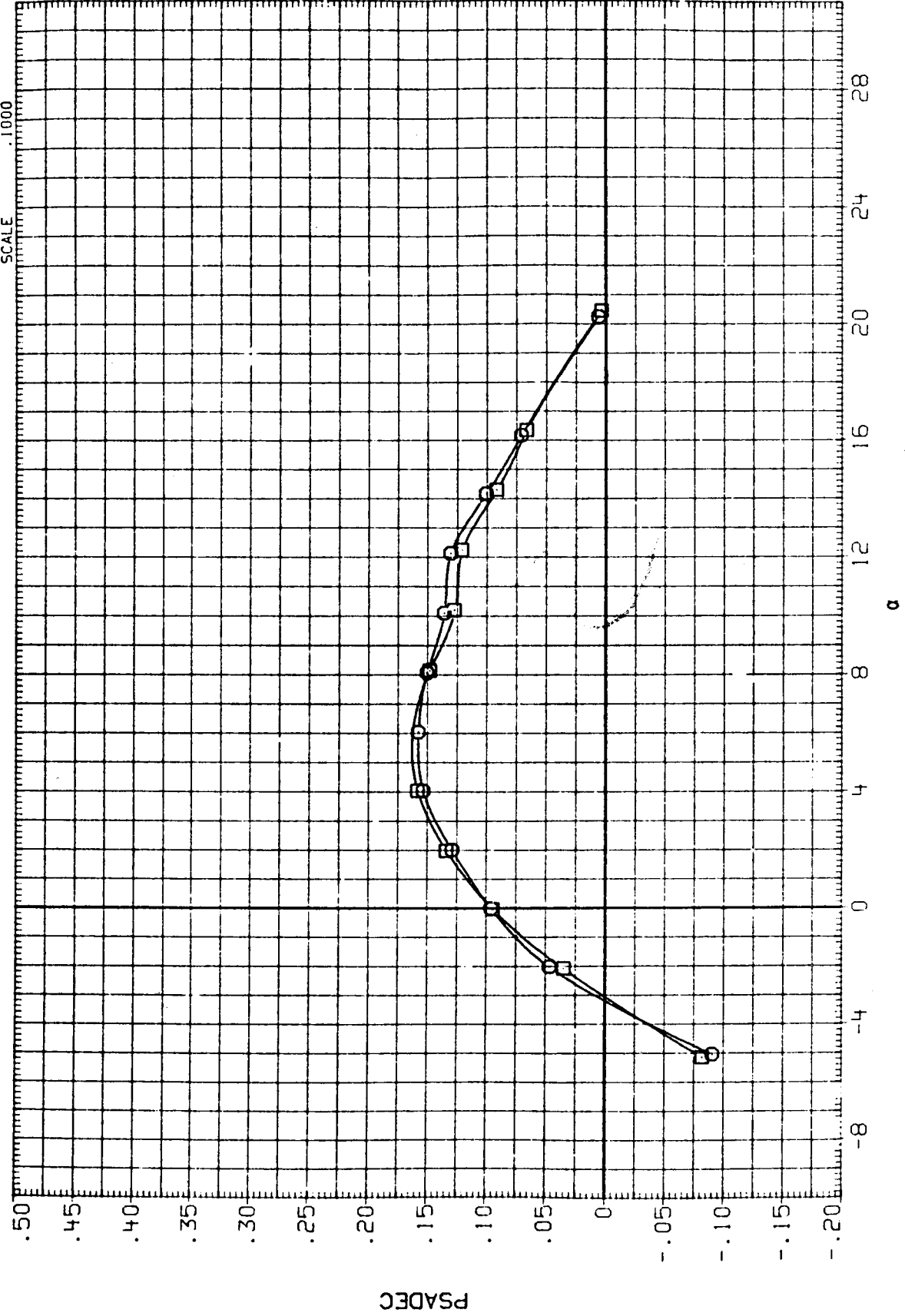


FIG 4 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - ALPHA SWEEPS

(A)MACH = .18

DATA SET SYMBOL	CONFIGURATION	PROBES STANDARD	ALPHA	RN/L	REFERENCE INFORMATION
QFLO14	OA228	B72C15PR4 PR7 PR8	.000		SREF 2690.0000 SO.FT.
QFLO15	OA228	B72C15PR4 PR7 PR8	4.000		LREF 474.8100 IN.
QFLO16	OA228	B72C15PR4 PR7 PR8	10.000		BREF 936.6800 IN.
QFLO11	OA228	B72C15PR4 PR7 PR8	.000		XMRP 1076.6800 IN. XO
QFLO12	OA228	B72C15PR4 PR7 PR8	4.000		ZMRP .0000 IN. YO
QFLO13	OA228	B72C15PR4 PR7 PR8	10.000		ZMRP 375.0000 IN. ZO
					SCALE .1000

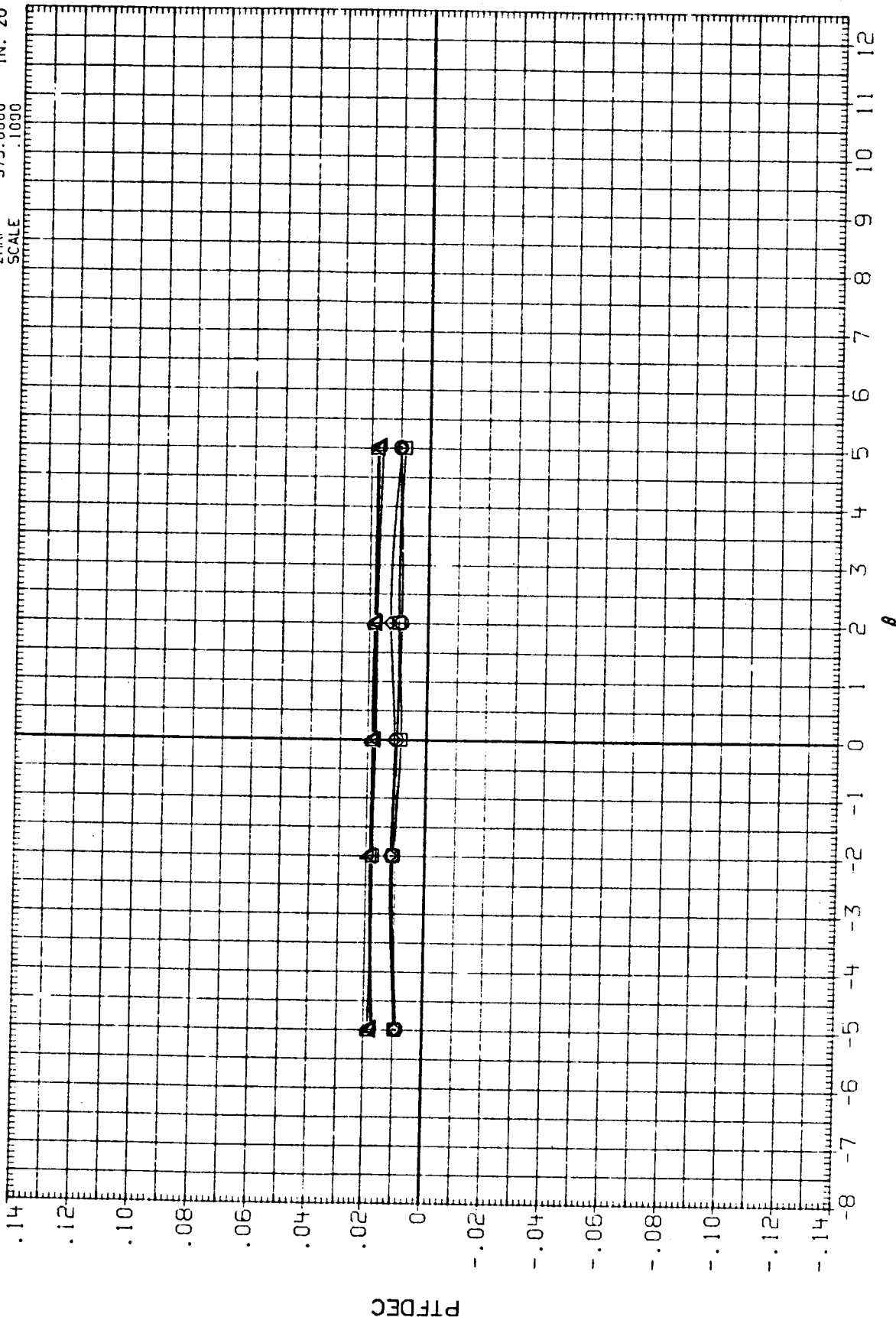


FIG 5 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - BETA SWEEPS

(A)MACH = .18

DATA SET SYMBOL	CONFIGURATION	PROBES STANDARD	ALPHA	RN/L	REFERENCE INFORMATION
QFL014	B72C15PR4 PR7 PR8	PROBES STANDARD	.000		SREF 2690.0000 SQ. FT.
QFL015	B72C15PR4 PR7 PR8	PROBES STANDARD	4.000		LREF 474.8100 IN.
QFL016	B72C15PR4 PR7 PR8	PROBES STANDARD	10.000		BREF 936.6800 IN.
QFL011	B72C15PR4 PR7 PR8	PROBES STANDARD	.000		XMRP 1076.6800 IN. XO
QFL012	B72C15PR4 PR7 PR8	PROBES STANDARD	4.000		YMRP .0000 IN. YO
QFL013	B72C15PR4 PR7 PR8	PROBES STANDARD	10.000		ZMRP 375.0000 IN. ZO
					SCALE .1000

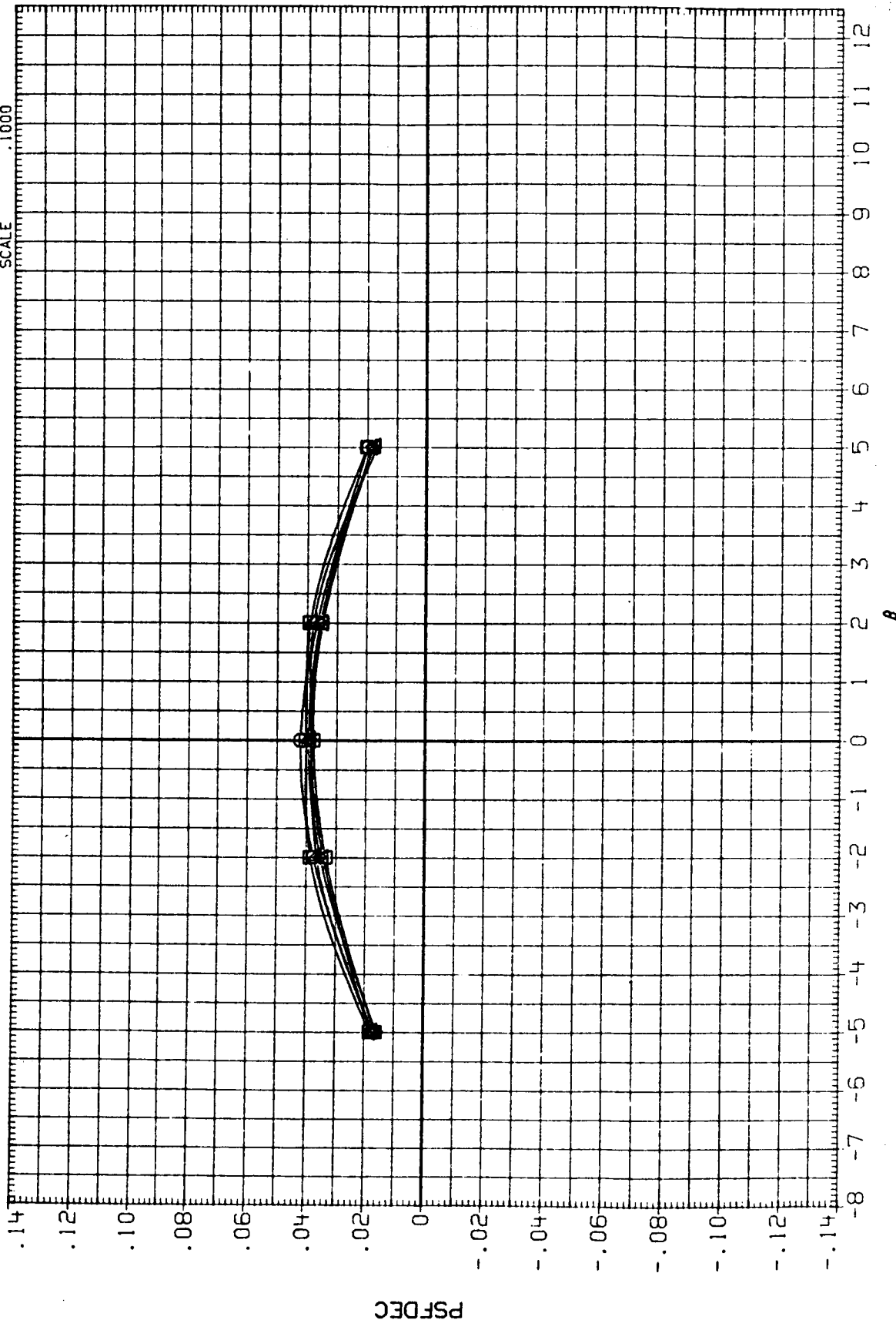


FIG 5 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - BETA SWEEPS

(A) MACH = .18

DATA SET SYMBOL	CONFIGURATION	PROBES STANDARD	ALPHA	RN/L	REFERENCE INFORMATION
OFL014	B72C15PR4 PR7 PR8	PROBES STANDARD	.000		SREF 2690.0000 SQ.FT.
OFL015	B72C15PR4 PR7 PR8	PROBES STANDARD	4.007		LREF 474.8100 IN.
OFL016	B72C15PR4 PR7 PR8	PROBES STANDARD	10.000		BREF 936.6800 IN.
OFL011	B72C15PR4 PR7 PR8	PROBES STANDARD	.000		XMRP 1076.6800 IN. XO
OFL012	B72C15PR4 PR7 PR8	PROBES STANDARD	4.000		YMRP .0000 IN. YO
OFL013	B72C15PR4 PR7 PR8	PROBES STANDARD	10.000		ZMRP 375.0000 IN. ZO
					SCALE .1000

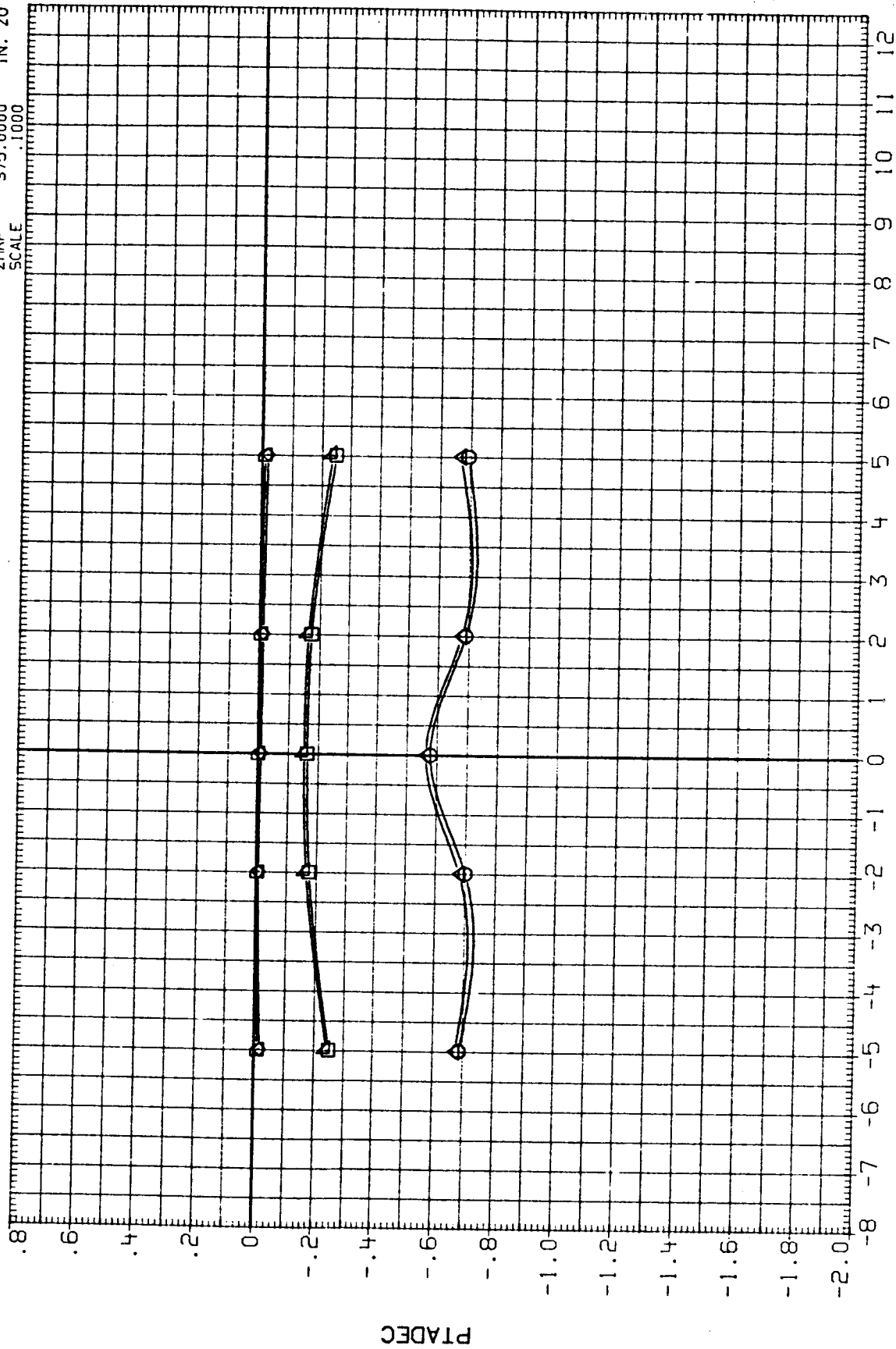


FIG 5 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - BETA SWEEPS

(A) MACH = .18

DATA SET SYMBOL	CONFIGURATION	PROBES STANDARD	ALPHA	RN/L	REFERENCE INFORMATION
QFL014	B72C15PR4 PR7 PR8	PROBES STANDARD	.000		SREF 2690.0000 SQ.FT.
QFL015	B72C15PR4 PR7 PR8	PROBES STANDARD	4.000		LREF 474.8100 IN.
QFL016	B72C15PR4 PR7 PR8	PROBES STANDARD	10.000		BREF 936.6800 IN.
QFL011	B72C15PR4 PR7 PR8	PROBES STANDARD	.000		YMRP 1076.6800 IN. X0
QFL012	B72C15PR4 PR7 PR8	PROBES STANDARD	4.000		YMRP .0000 IN. Y0
QFL013	B72C15PR4 PR7 PR8	PROBES STANDARD	10.000		ZMRP 375.0000 IN. Z0
					SCALE .1000

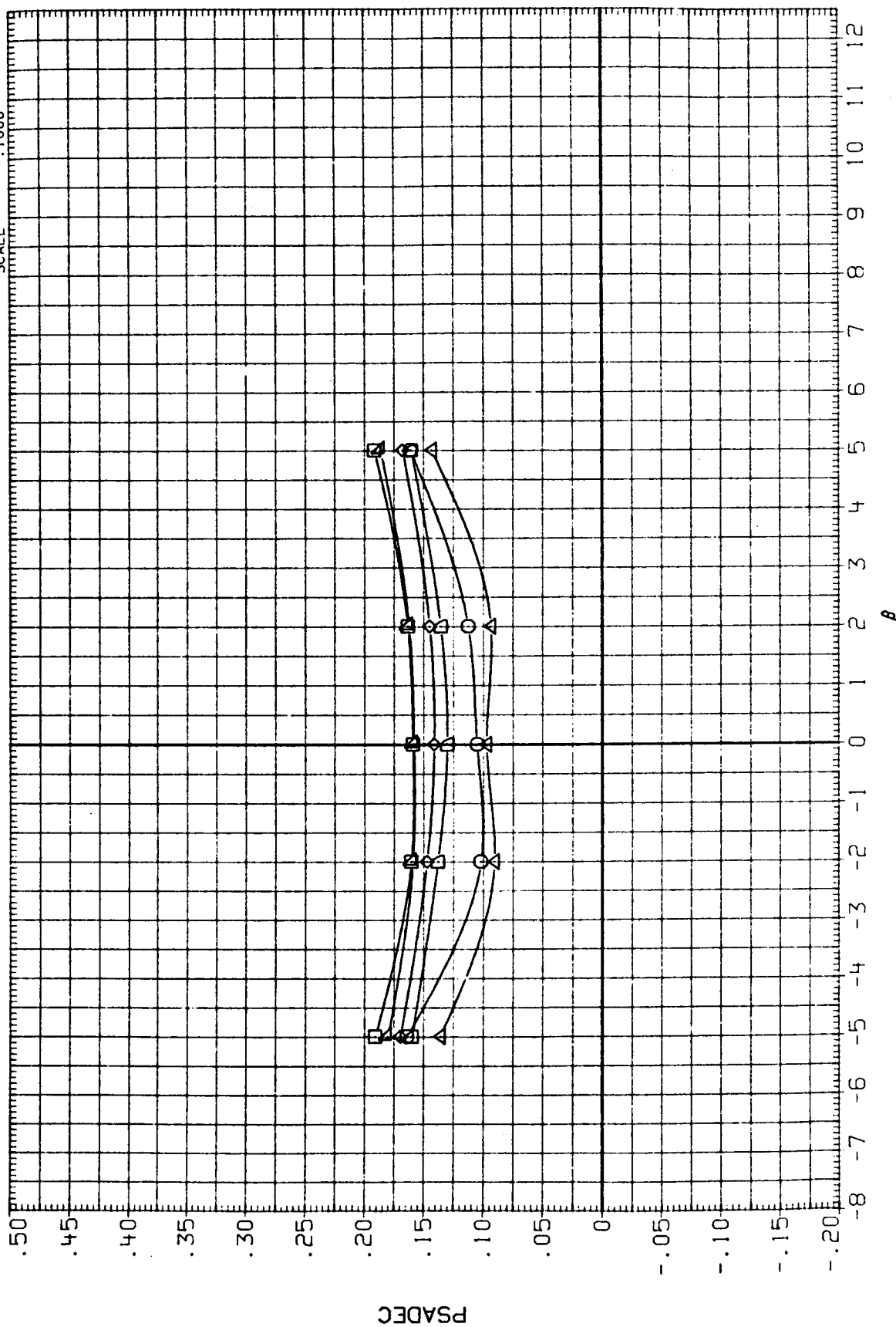


FIG 5 EFFECT OF REYNOLDS NO. ON PROBE PRESSURE MEASUREMENTS - BETA SWEEPS

(A) MACH = .18

DATA SET SYMBOL

QFL001
QFL017
QFL010
QFL021

CONFIGURATION

OA228 B72C15PR4 PR7 PR8
OA228 B72C15 PR7 PR8
DATA NOT AVAILABLE
DATA NOT AVAILABLE

PROBES STANDARD
PROBES STANDARD

BETA

.000
.000
.000
.000

RN/L

1.270
1.270
1.780
1.780

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.
LREF 474.8100 IN.
BREF 936.6800 IN.
XMRP 1076.6800 IN. XO
YMRP .0000 IN. YO
ZMRP 375.0000 IN. ZO
SCALE .1000

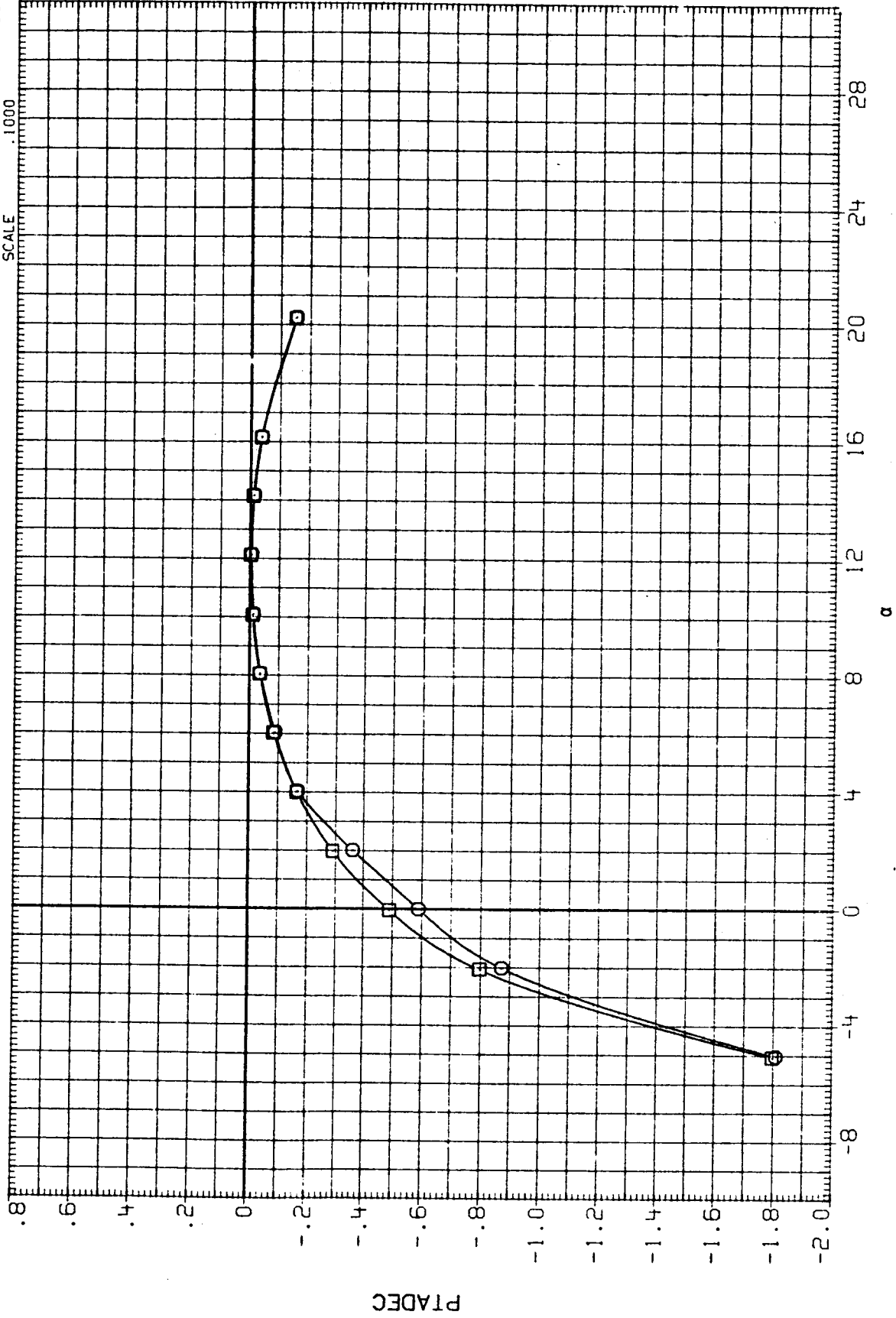


FIG 6 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEASUREMENTS - ALPHA SWEEPS

DATA SET SYMBOL	CONFIGURATION	PROBES STANDARD	BETA	RN/L	REFERENCE INFORMATION
QFL001	OA228	B72C15PR4	.000	1.270	SREF 2690.0000 SQ. FT.
QFL017	OA228	B72C15	.000	1.270	LREF 474.8100 IN.
QFL010	DATA NOT AVAILABLE		.000	1.780	BREF 936.6800 IN.
QFL021	DATA NOT AVAILABLE		.000	1.780	XMRP 1076.6800 IN. XO
					YMRP .0000 IN. YO
					ZMRP 375.0000 IN. ZO
					SCALE .1000

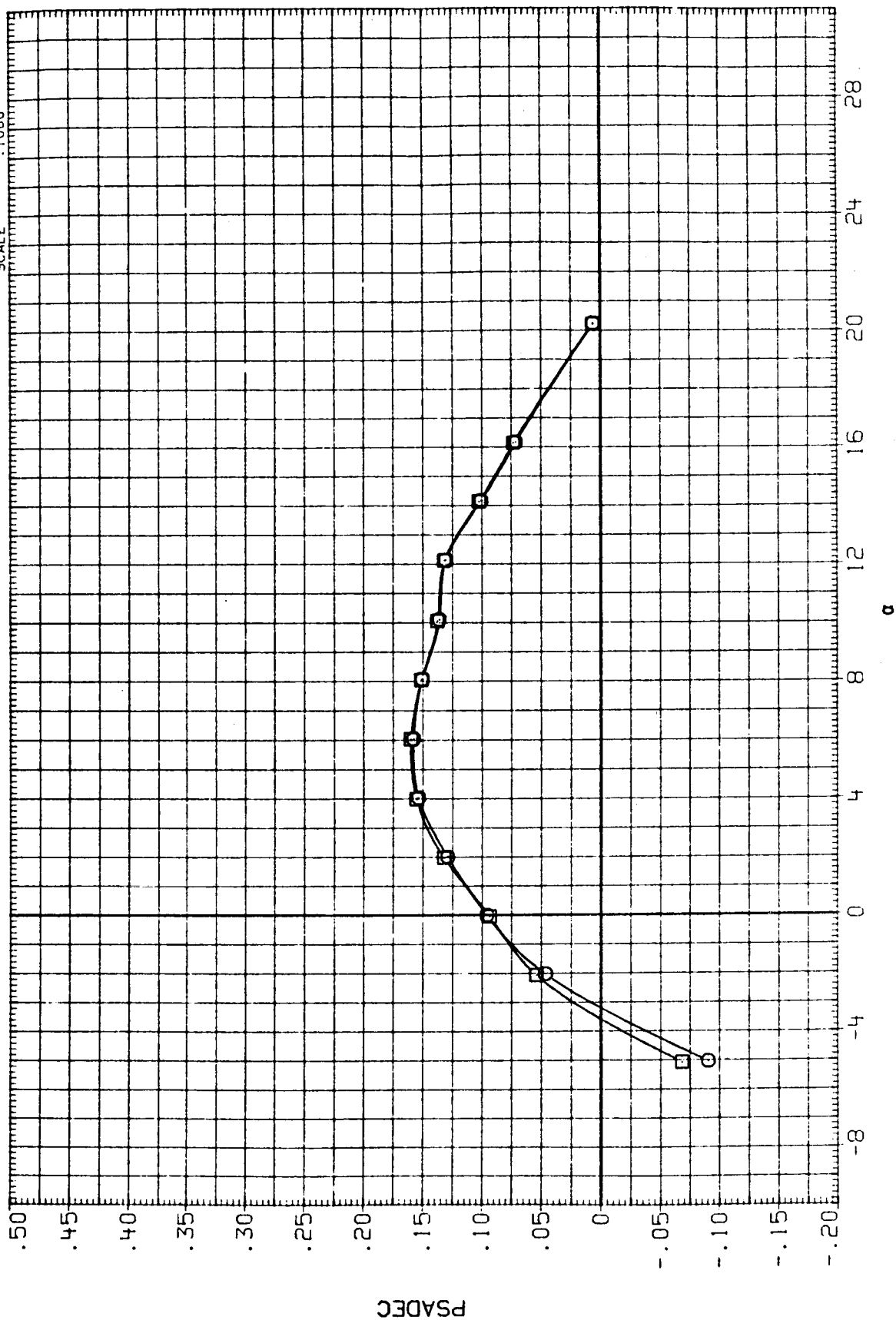


FIG 6 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEASUREMENTS - ALPHA SWEEPS

(A) MACH = .18

DATA SET SYMBOL

QFLO01 DATA NOT AVAILABLE
 QFLO17 DATA NOT AVAILABLE
 QFLO10 OA228 B7EC15PR4 PR7 PR8 PROBES STANDARD
 QFLO21 OA228 B72C15 PR7 PR8 PROBES STANDARD

BETA RN/L
 .000 1.270
 .000 1.270
 .000 1.780
 .000 1.780

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8100 IN.
 BREF 936.6800 IN.
 XMRP 1076.6800 IN. XO
 YMRP .0000 IN. YO
 ZMRP 375.0000 IN. ZO
 SCALE 1.000

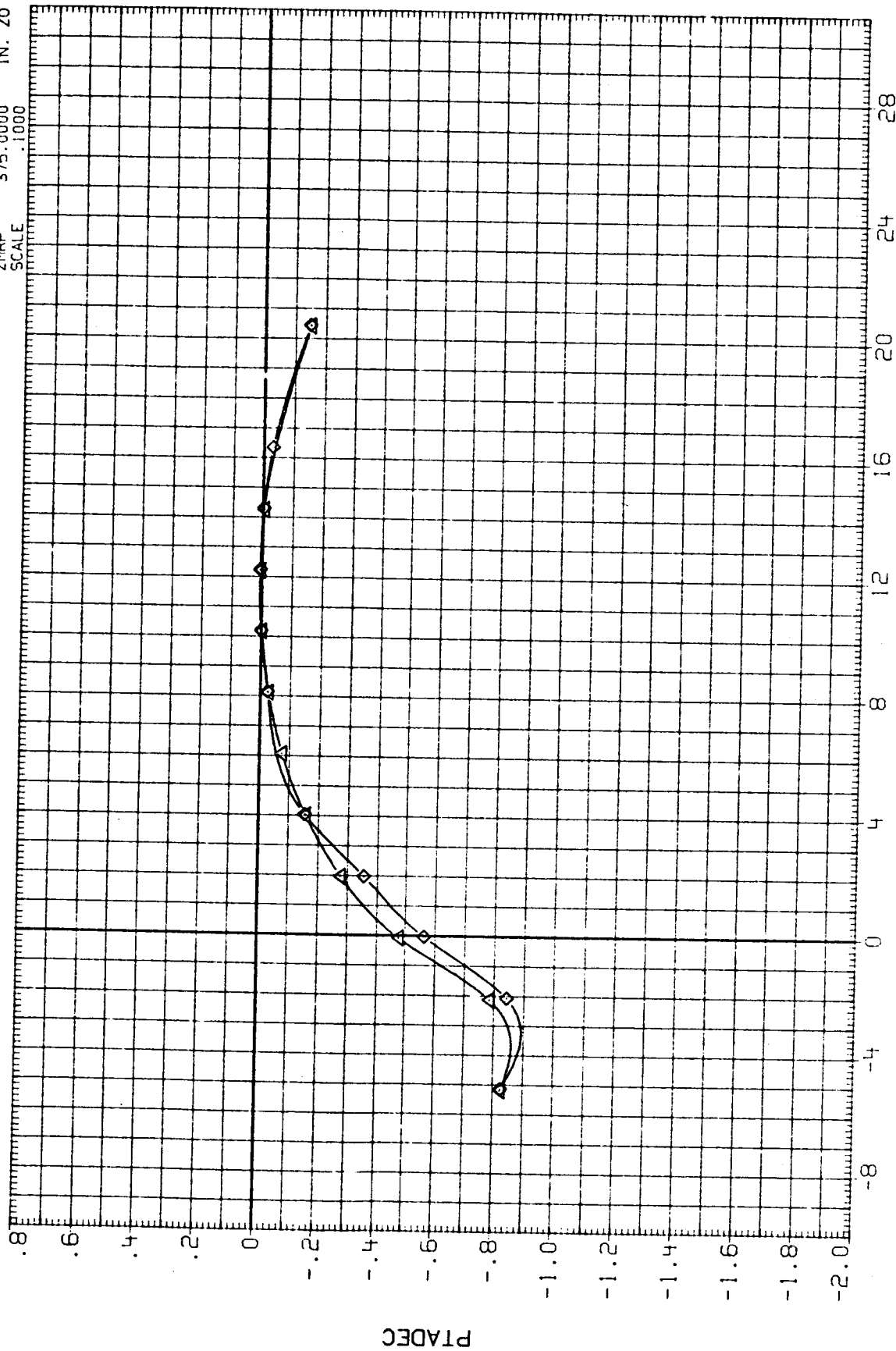


FIG 6 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEASUREMENTS - ALPHA SWEEPS

(B)MACH = .25

DATA SET SYMBOL

OFLO01 □ DATA NOT AVAILABLE

OFLO17 □ DATA NOT AVAILABLE

OFLO10 ◇ OA228

OFLO21 △ OA228

CONFIGURATION

PR7 PR8

PR7 PR8

PR7 PR8

BETA

RN/L

1.270

1.270

1.780

1.780

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.

LREF 474.8100 IN.

BREF 936.6800 IN.

XMRP 1076.6800 IN. X0

YMRP .0000 IN. Y0

ZMRP 375.0000 IN. Z0

SCALE .1000

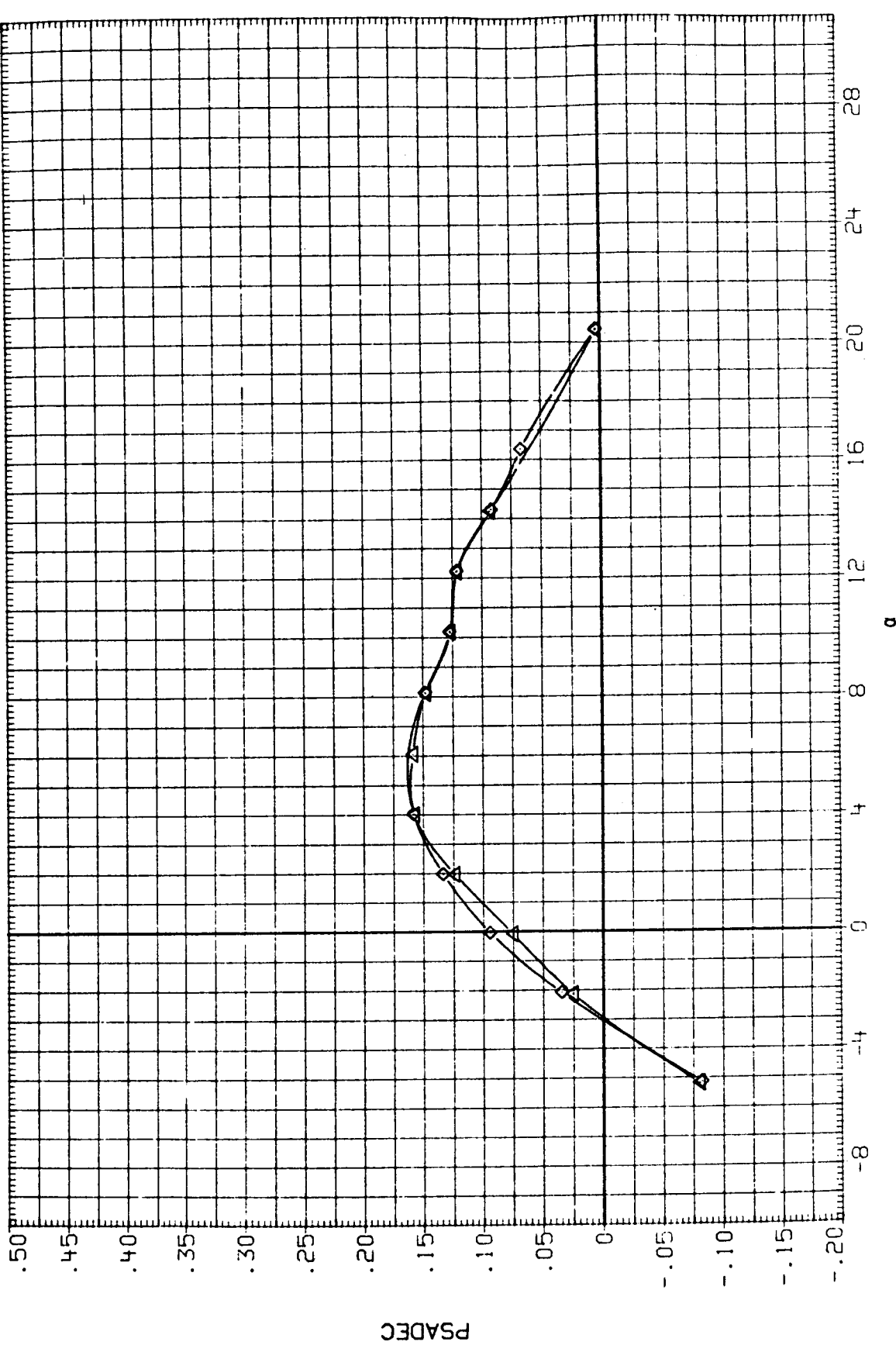


FIG 6 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEASUREMENTS - ALPHA SWEEPS

(B) MACH = .25

PAGE 12

DATA SET SYMBOL		CONFIGURATION		ALPHA		RN/L		REFERENCE INFORMATION	
QFL014	OA228	B72C15PR4	PR7	PR8	PROBES STANDARD	.000		SREF	2690.0000
QFL015	OA228	B72C15PR4	PR7	PR8	PROBES STANDARD	4.000		LREF	474.8100
QFL016	OA228	B72C15PR4	PR7	PR8	PROBES STANDARD	10.000		BREF	936.6800
QFL018	OA228	RIGHT PROBE			+ AND - BETA MATCHED	.000		XMRP	1076.6800
QFL019	OA228	RIGHT PROBE			+ AND - BETA MATCHED	4.000		YMRP	.0000
QFL020	OA228	RIGHT PROBE			+ AND - BETA MATCHED	10.000		ZMRP	375.0000
								SCALE	.1000

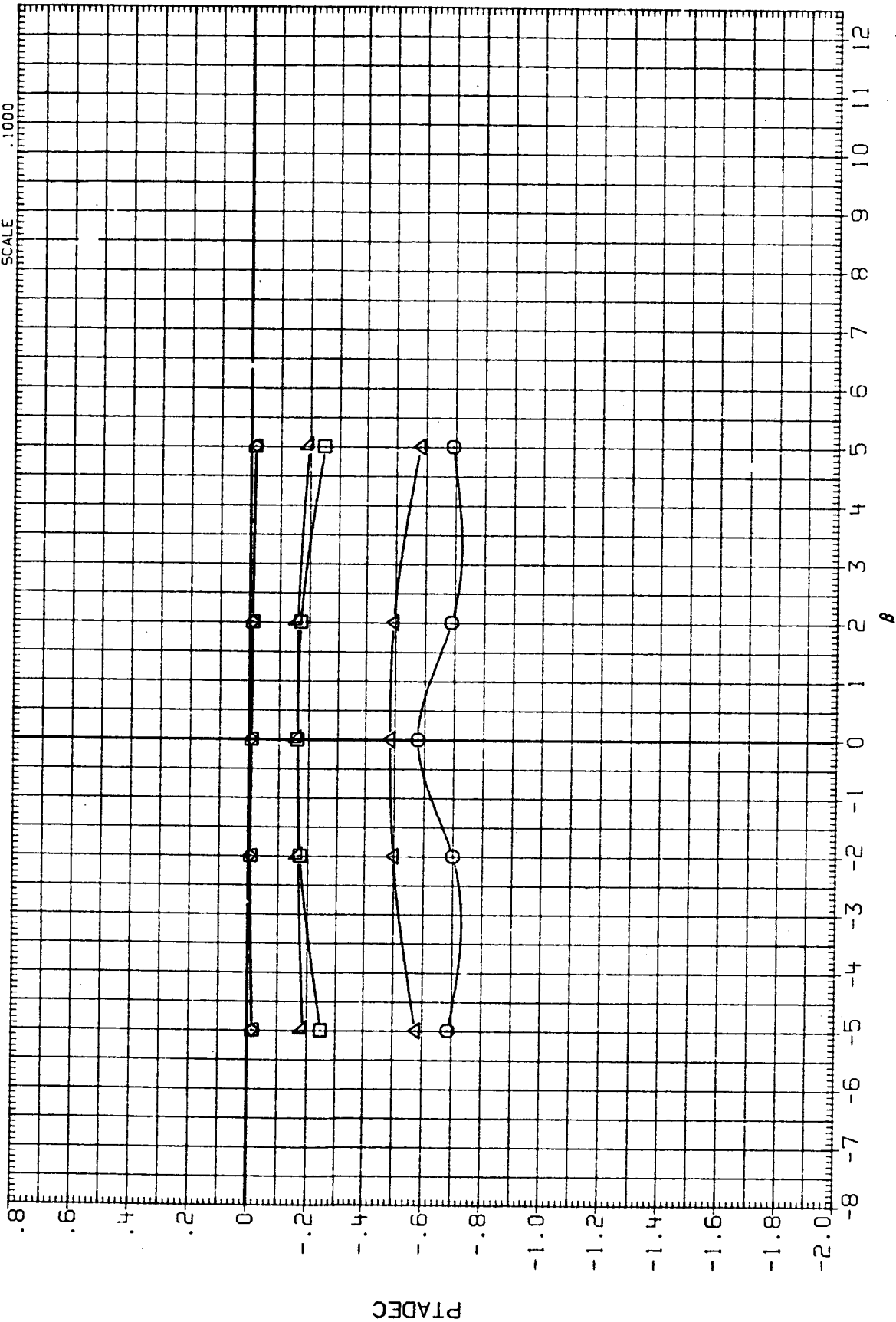


FIG 7 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEAS. RN/L = 1.27 BETA SWP

DATA SET SYMBOL

OFL014
 OFL015
 OFL016
 OFL018
 OFL019
 OFL020

O
 □
 ◇
 △
 ▽

OA228
 OA228
 OA228
 OA228
 OA228
 OA228

872C15PR4
 872C15PR4
 872C15PR4
 872C15PR4
 872C15PR4
 872C15PR4

PR7
 PR7
 PR7
 PR7
 PR7
 PR7

PROBES STANDARD
 PROBES STANDARD
 PROBES STANDARD
 AND - BETA MATCHED
 AND - BETA MATCHED
 AND - BETA MATCHED

ALPHA
 .000
 4.000
 10.000
 .000
 4.000
 10.000

RN/L
 .000
 4.000
 10.000
 .000
 4.000
 10.000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8100 IN.
 BREF 936.6800 IN.
 XHRP 1076.6800 IN. XO
 YHRP .0000 IN. YO
 ZHRP 375.0000 IN. ZO

SCALE
 .1000

PSADFC

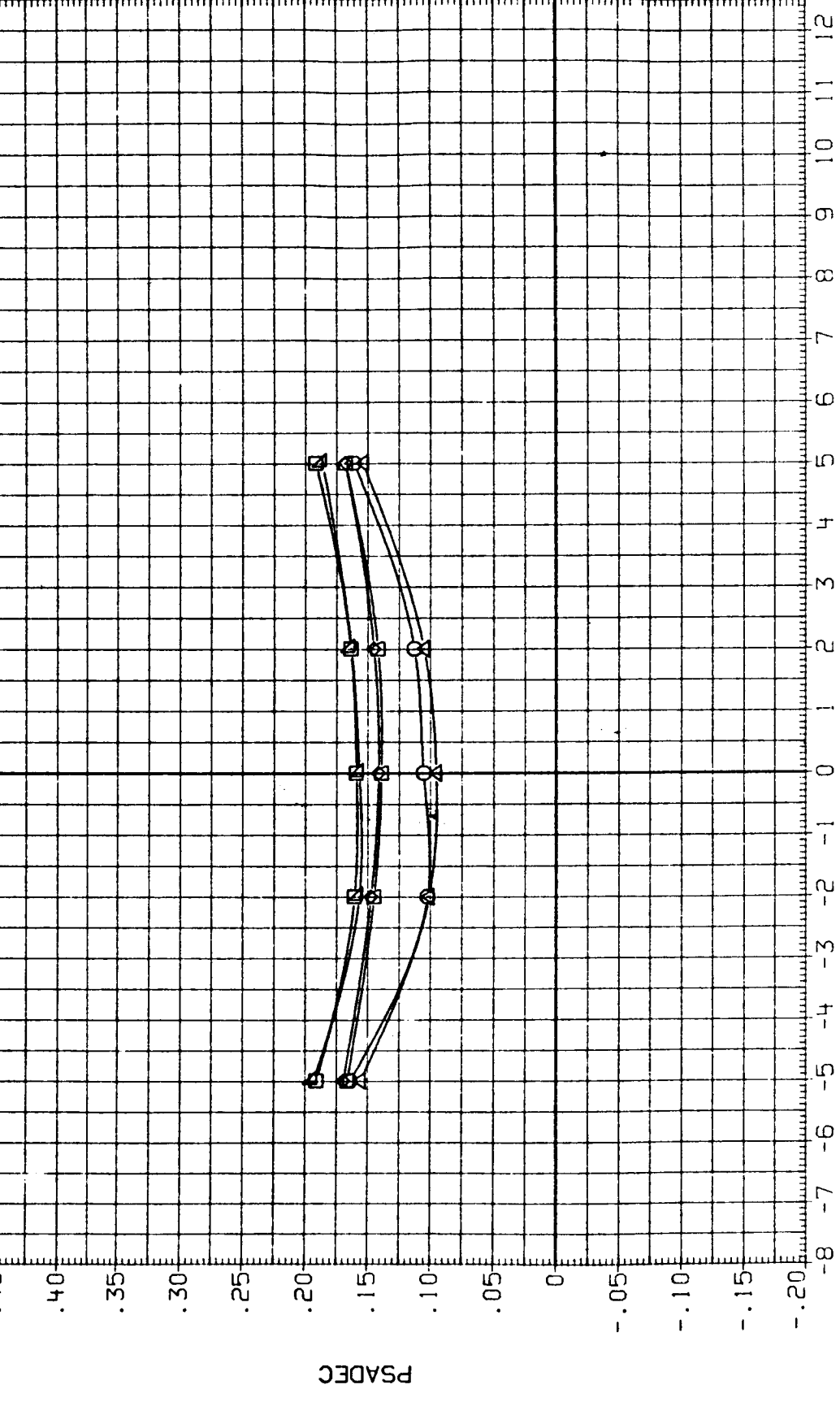


FIG 7 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEAS. RN/L = 1.27 BETA SWP

(A) MACH = .18

PAGE 14

DATA SET SYMBOL		CONFIGURATION				ALPHA	RN/L	REFERENCE INFORMATION		
OFL011	□	OA228	B72C15PR4	PR7	PR8	PROBES STANDARD	.000	SREF	2590.0000	SO.FT.
OFL012	◇	OA228	B72C15PR4	PK7	PR8	PROBES STANDARD	4.000	LREF	474.8100	IN.
OFL013	◇	OA228	B72C15PR4	PK7	PR8	PROBES STANDARD	10.000	BREF	935.6800	IN.
OFL022	△	OA228	RIGHT PROBE			* AND - BETA MATCHED	.000	XMRP	1075.6800	IN. XO
OFL023	△	OA228	RIGHT PROBE			* AND - BETA MATCHED	4.000	YMRP	.0000	IN. YO
OFL024	△	OA228	RIGHT PROBE			* AND - BETA MATCHED	10.000	ZMRP	375.0000	IN. ZO

SCALE .1000

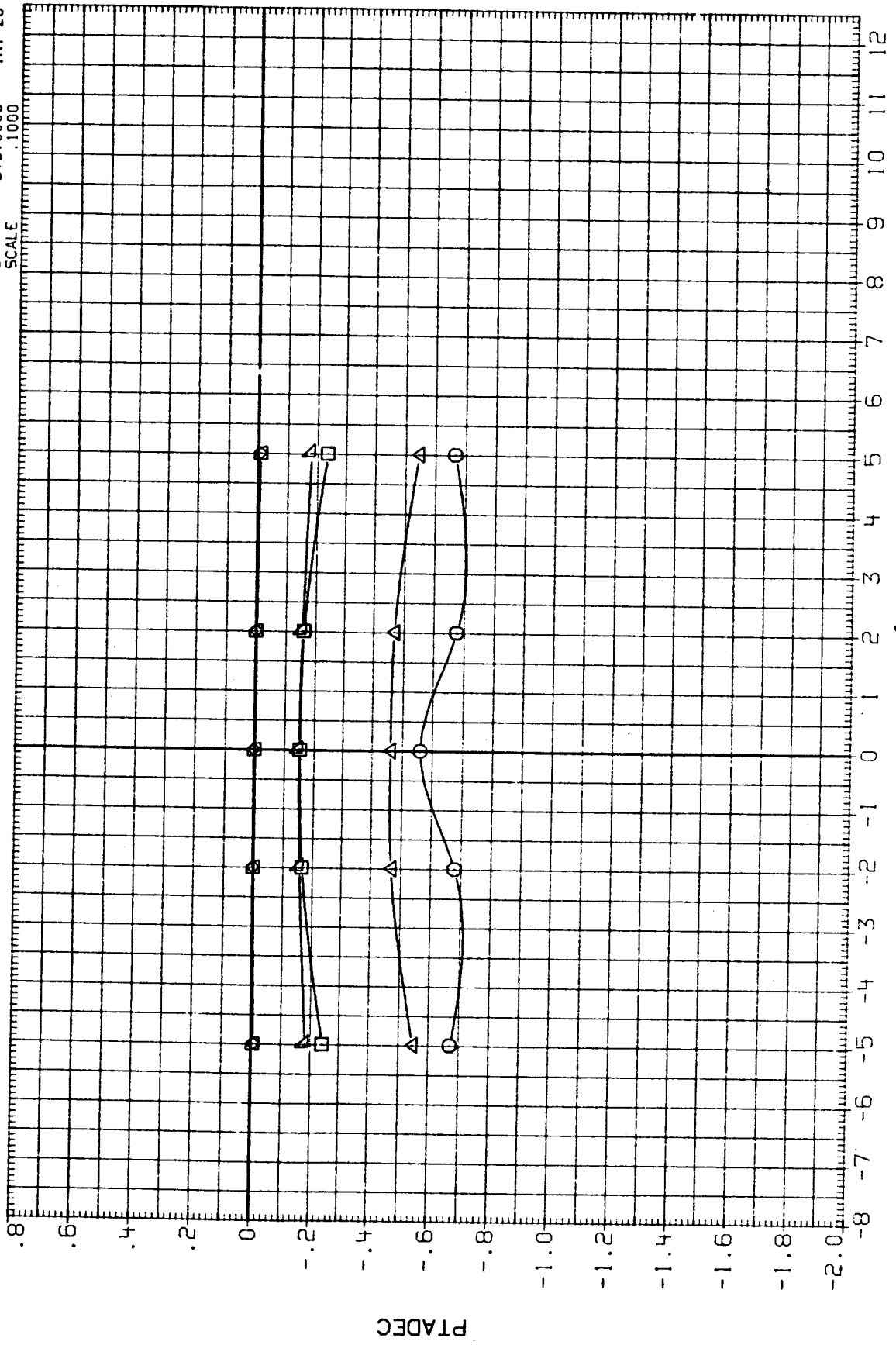


FIG 8 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEAS. RN/L = 1.78 BETA SWP

(A) MACH = .25

PAGE 15

DATA SET	SYMBOL	CONFIGURATION	ALPHA	RN/L	REFERENCE INFORMATION
QFL011	□	OA228 B72C15PR4 PR7 PR8	.000		SREF 2690.0000 SQ.FT.
QFL012	◇	OA228 B72C15PR4 PR7 PR8	4.000		LREF 474.8100 IN.
QFL013	◇	OA228 B72C15PR4 PR7 PR8	10.000		BREF 936.6800 IN.
QFL022	△	OA228 RIGHT PROBE	.000		XMRP 1076.6800 IN. XO
QFL023	△	OA228 RIGHT PROBE	4.000		YMRP .0000 IN. YO
QFL024	△	OA228 RIGHT PROBE	10.000		ZMRP 375.0000 IN. ZO
					SCALE .1000

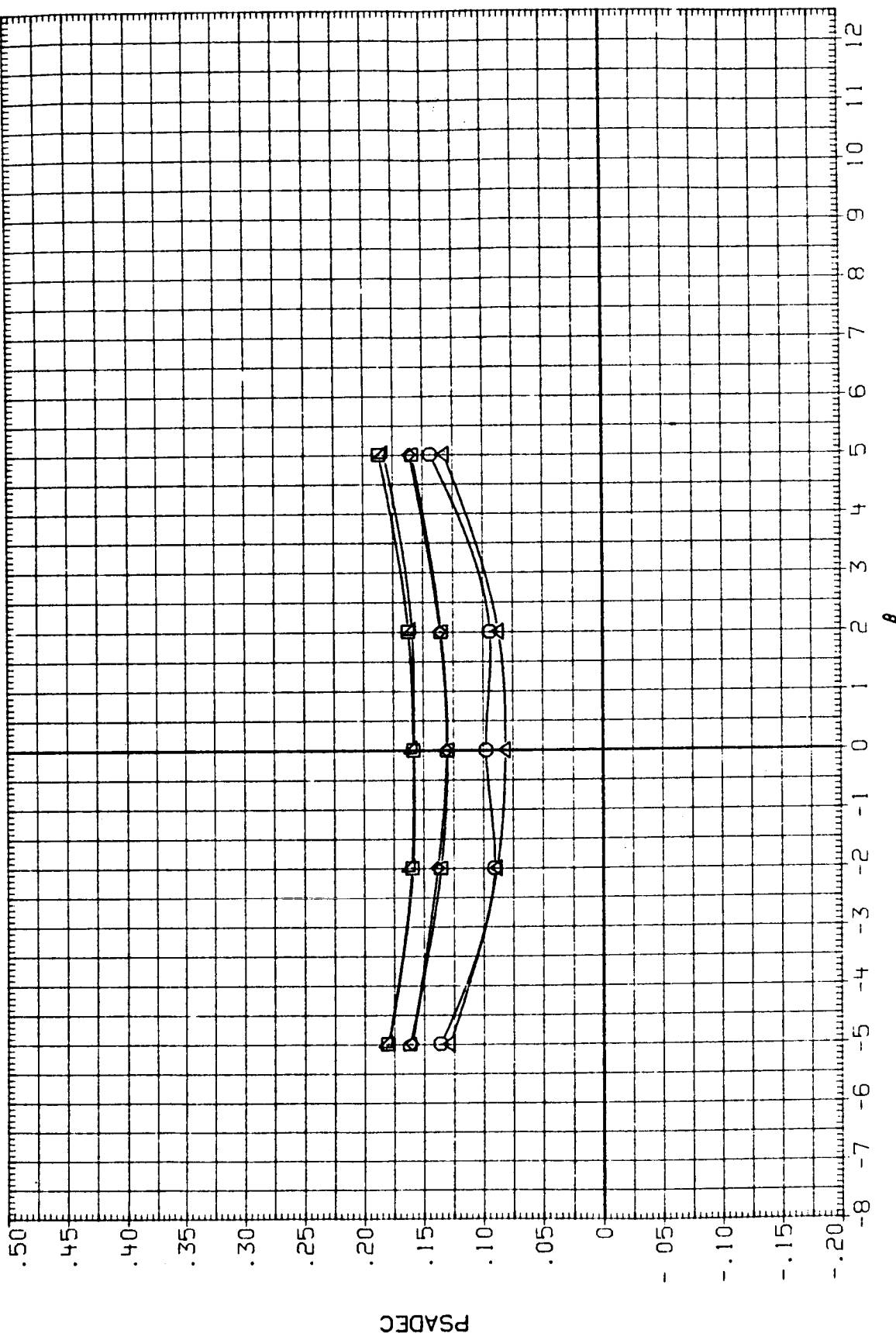


FIG 8 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE MEAS. RN/L = 1.78 BETA SWP
 (A) MACH = .25 PAGE 16

DATA SET SYMBOL		CONFIGURATION		BETA	RN/L	REFERENCE INFORMATION	
OFLO17	□	OA228	B72C15	.000	1.270	SREF	2690.0000 SQ.FT.
OFLO29	◇	OA228	B72C15	.000	1.270	LREF	474.8100 IN.
OFLO21	◇	DATA NOT AVAILABLE		.000	1.780	BREF	936.6800 IN.
OFLO25	△	DATA NOT AVAILABLE		.000	1.780	XMRP	1076.6800 IN.
						YMRP	.0000 IN.
						ZMRP	375.0000 IN.
						SCALE	.1000

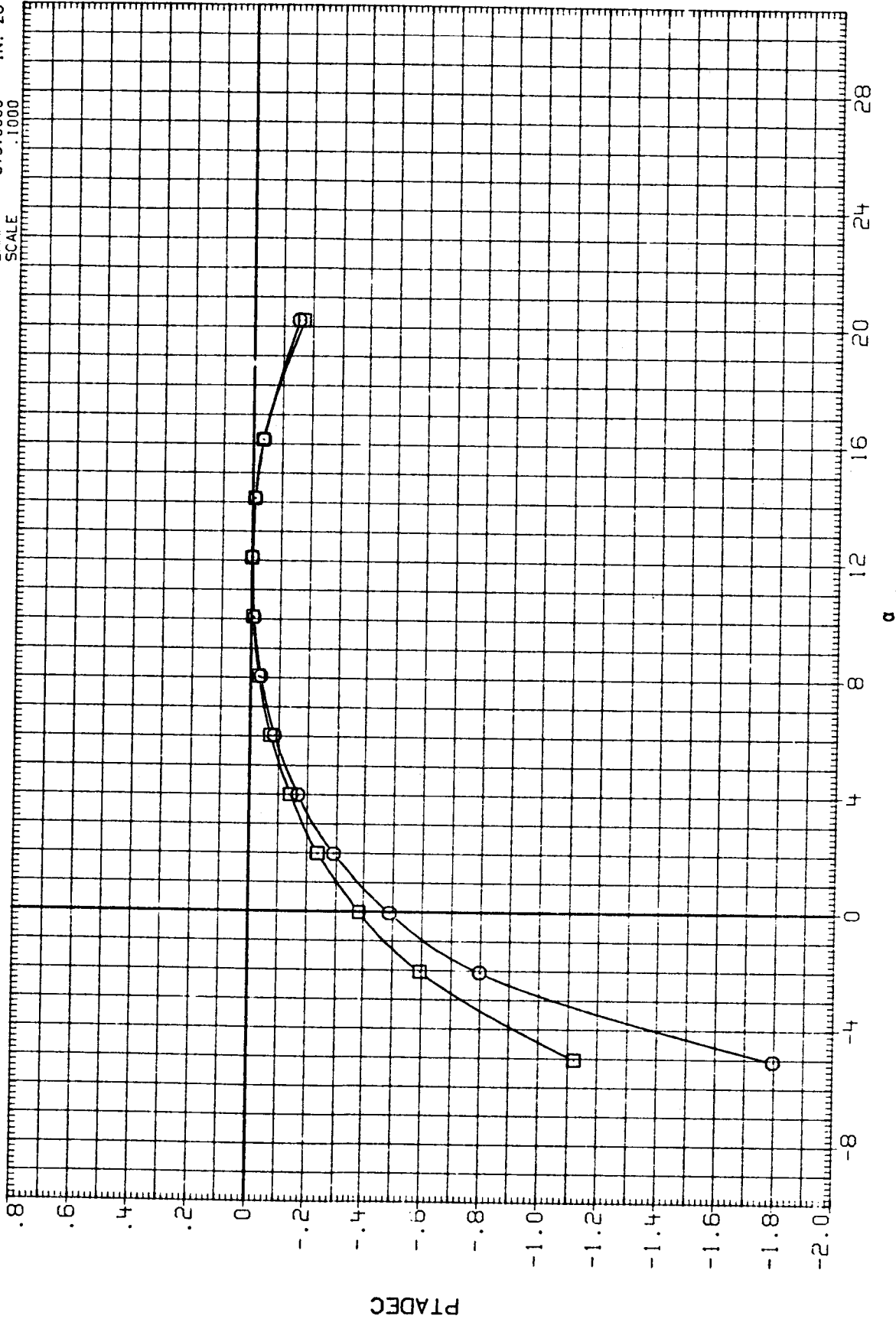


FIG 9 EFFECT OF SIDE PROBE REVERSAL - ALPHA SWEEPS

(A) MACH = .18

DATA SET SYMBOL	CONFIGURATION	BETA	RN/L	REFERENCE INFORMATION
OFL017	0A228 B72C15 PR7 PR8	.000	1.270	SREF 2690.0000 SO.FT.
OFL029	0A228 B72C15 PR7R PR8L	.000	1.270	LREF 474.8100 IN.
OFL021	DATA NOT AVAILABLE	.000	1.780	BREF 936.6800 IN.
OFL025	DATA NOT AVAILABLE	.000	1.780	YMRP 1076.6800 IN. X0
				ZMRP .0000 IN. Y0
				SCALE .1000 IN. Z0

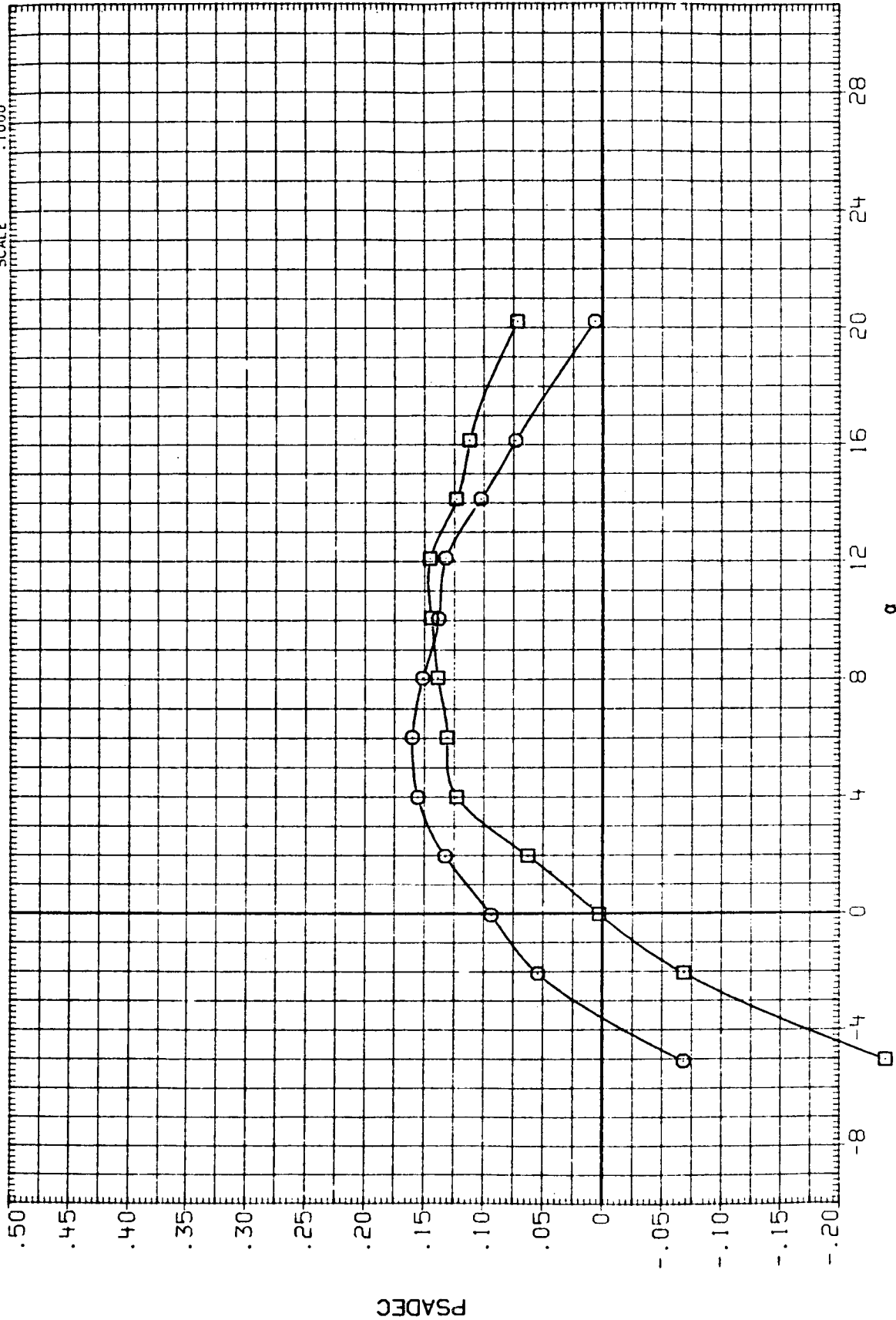


FIG 9 EFFECT OF SIDE PROBE REVERSAL - ALPHA SWEEPS

(A) MACH = .18

DATA SET SYMBOL		CONFIGURATION		BETA	RN/L	REFERENCE INFORMATION	
OFL017	○ DATA NOT AVAILABLE			.000	1.270	SREF	2690.0000 SQ. FT.
OFL029	◇ DATA NOT AVAILABLE			.000	1.270	LREF	474.8100 IN.
OFL021	◇	PR7	PR8	.000	1.780	BREF	936.6800 IN.
OFL025	△	PR7R	PR8L	.000	1.780	XMRP	1076.6800 IN. XO
						YMRP	.0000 IN. YO
						ZMRP	375.0000 IN. ZO
						SCALE	.1000

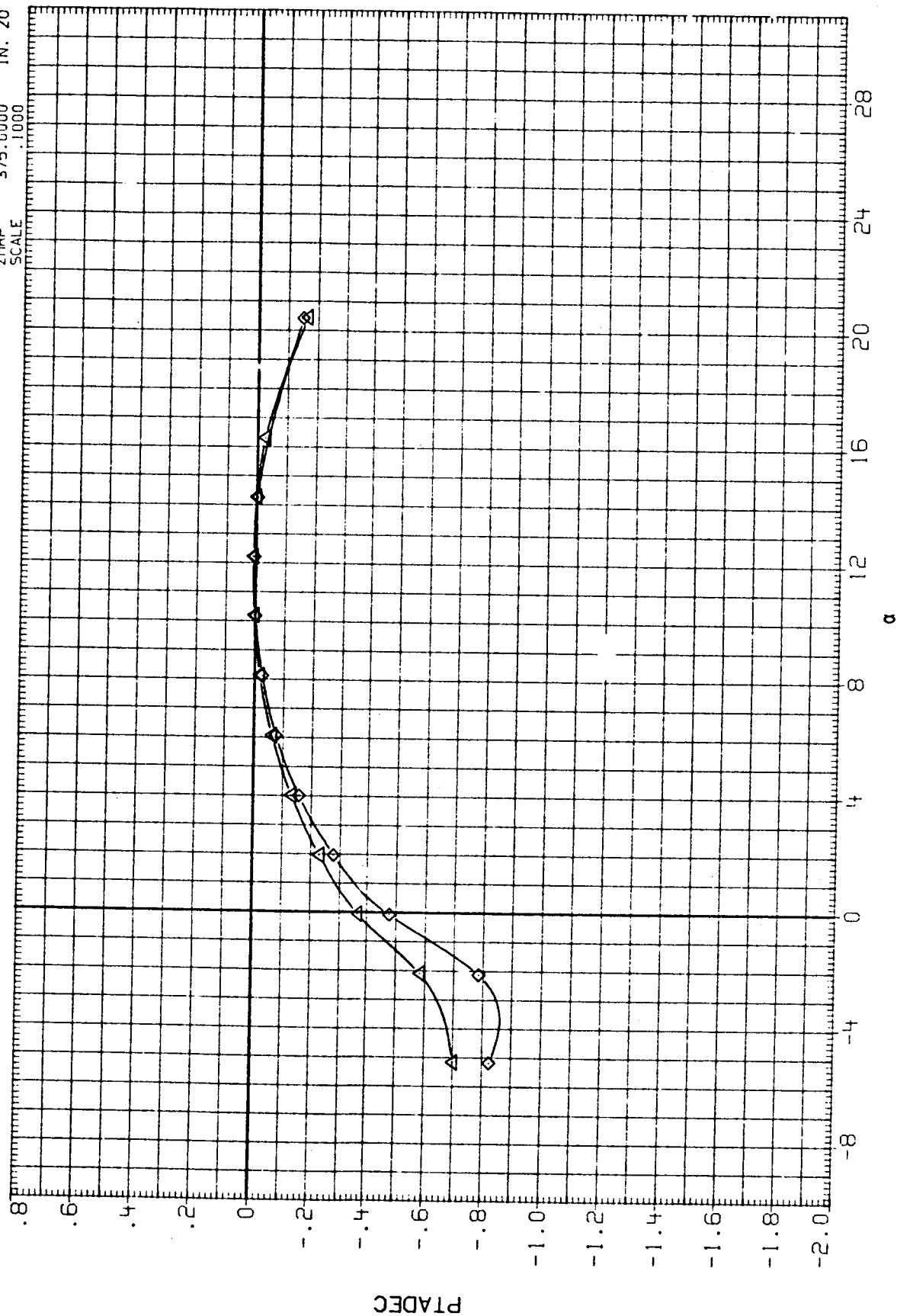


FIG 9 EFFECT OF SIDE PROBE REVERSAL - ALPHA SWEEPS

(B) MACH = .25

DATA SET SYMBOL		CONFIGURATION		BETA	RN/L	REFERENCE INFORMATION	
OFL017	□ DATA NOT AVAILABLE	PR7 PR8	PROBES STANDARD	.000	1.270	SREF	2690.0000 SQ.FT.
OFL029	□ DATA NOT AVAILABLE	PR7R PR8L	PROBES REVERSED	.000	1.270	LREF	474.8100 IN.
OFL021	◇ OA228 B72C15			.000	1.780	BREF	936.6800 IN.
OFL025	△ OA228 B72C15			.000	1.780	XMRP	1076.6800 IN.
						YMRP	.0000 IN.
						ZMRP	375.0000 IN.
						SCALE	.1000

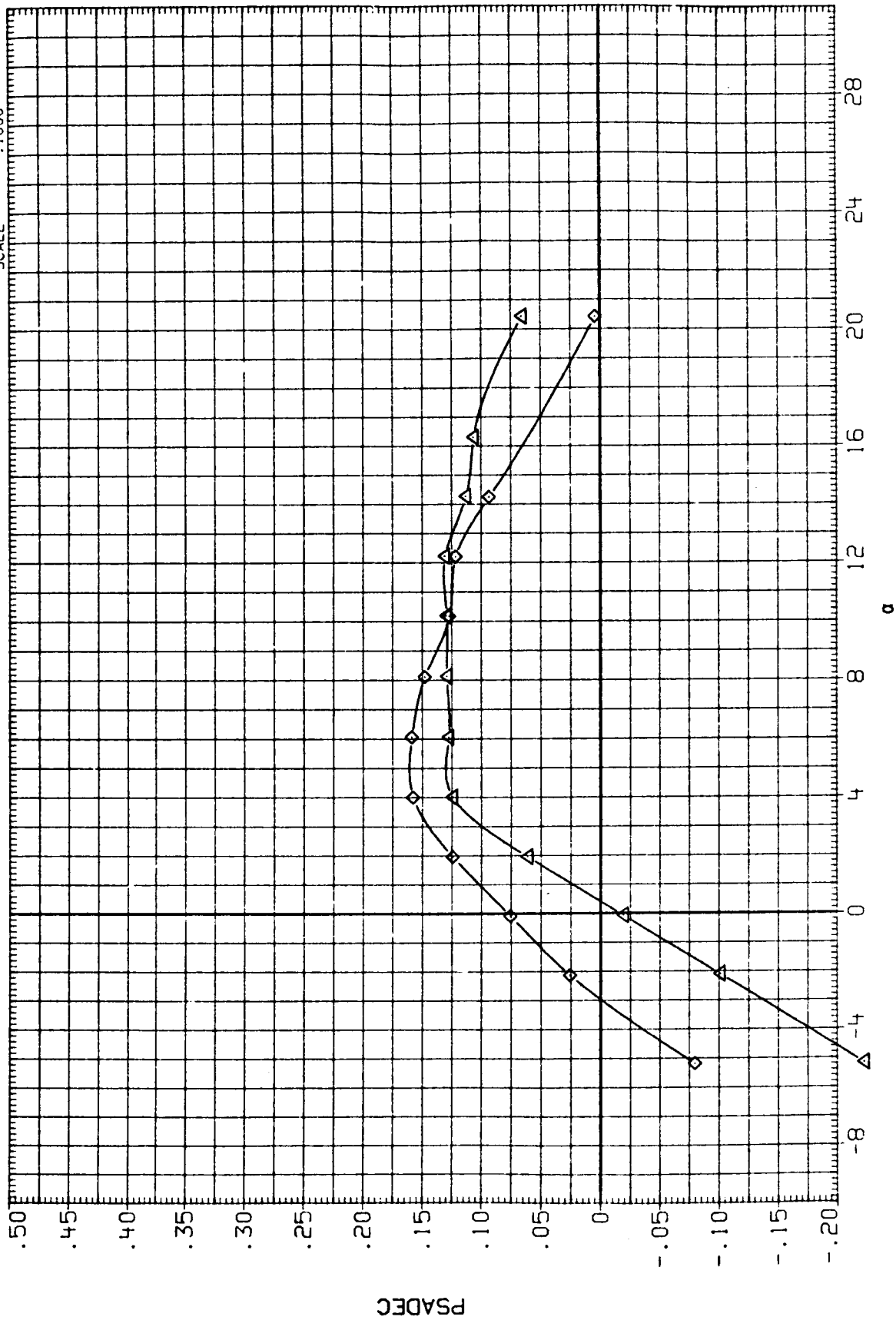


FIG 9 EFFECT OF SIDE PROBE REVERSAL - ALPHA SWEEPS

(B) MACH = .25

DATA SET SYMBOL	CONFIGURATION	ALPHA	RN/L	REFERENCE INFORMATION
OFL018	OA228 RIGHT PROBE	.000		SREF 2690.0000 SQ.FT.
OFL019	OA228 RIGHT PROBE	4.000		LREF 474.8100 IN.
OFL020	OA228 RIGHT PROBE	10.000		BREF 936.6800 IN.
OFL030	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	.000		XMRP 1076.6800 IN. XO
OFL031	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	4.000		YMRP .0000 IN. YO
OFL032	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	10.000		ZMRP 375.0000 IN. ZO
				SCALE .1000

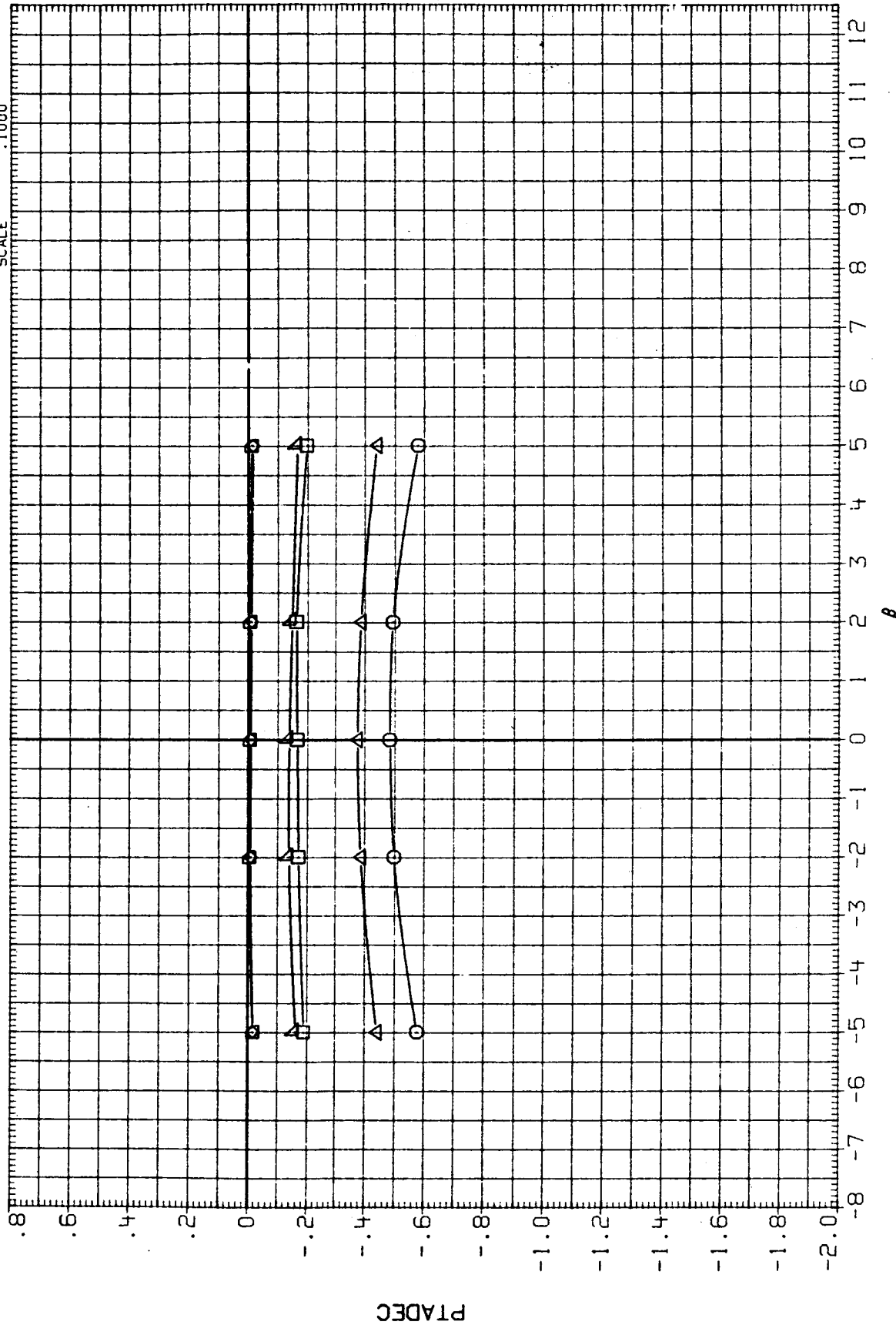


FIG 10 EFFECT OF SIDE PROBE REVERSAL - RN/L = 1.27 BETA SWEEPS

DATA SET SYMBOL	CONFIGURATION	ALPHA	RN/L	REFERENCE INFORMATION
QFL018	OA228 RIGHT PROBE	+ AND - BETA MATCHED	.000	SREF 2690.0000 SO.FT.
QFL019	OA228 RIGHT PROBE	+ AND - BETA MATCHED	4.000	LREF 477.8100 IN.
QFL020	OA228 RIGHT PROBE	+ AND - BETA MATCHED	10.000	BREF 936.6800 IN.
QFL030	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	.000	.000	XMRP 1076.6800 IN. XO
QFL031	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	4.000	4.000	YMRP .0000 IN. YO
QFL032	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	10.000	10.000	ZMRP 375.0000 IN. ZO
				SCALE .1000

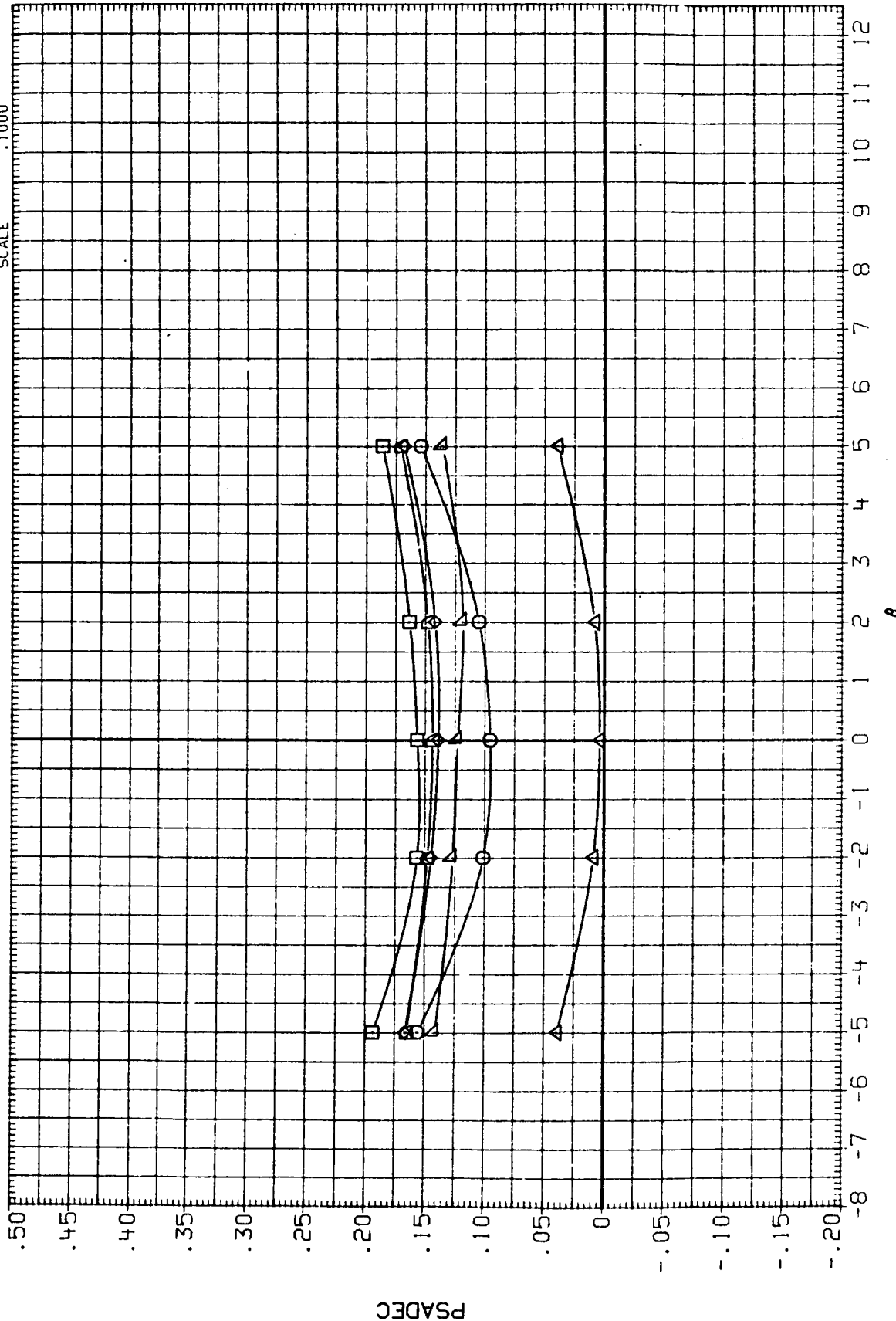


FIG 10 EFFECT OF SIDE PROBE REVERSAL - RN/L = 1.27 BETA SWEEPS

(A) MACH = .18

DATA SET SYMBOL	CONFIGURATION	ALPHA	RN/L	REFERENCE INFORMATION
OFL022	OA228 RIGHT PROBE	.000		SREF 2690.0000 SQ.FT.
OFL023	OA228 RIGHT PROBE	4.000		LREF 474.8100 IN.
OFL024	OA228 RIGHT PROBE	10.000		BREF 936.6800 IN.
OFL026	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	.000		XMRP 1076.9800 IN. XO
OFL027	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	4.000		YMRP .0000 IN. YO
OFL028	OA228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	10.000		ZMRP 375.0000 IN. ZO
				SCALE .1000

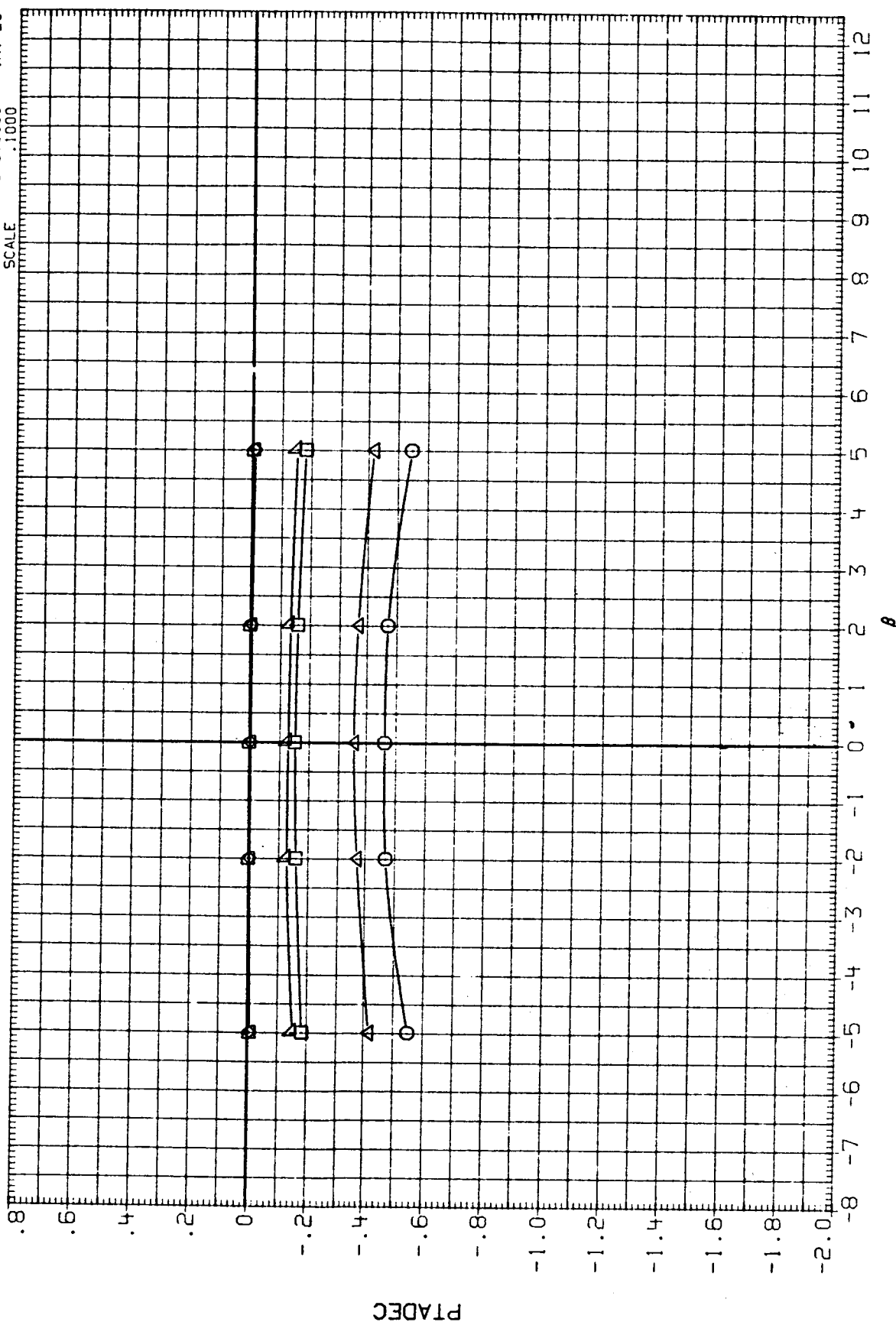


FIG 11 EFFECT OF SIDE PROBE REVERSAL - RN/L = 1.73 BETA SWEEPS

(A) MACH = .25

DATA SET SYMBOL	CONFIGURATION	ALPHA	RN/L	REFERENCE INFORMATION
QFL022	0A228 RIGHT PROBE	.000		SREF 2690.0000 SQ. FT.
QFL023	0A228 RIGHT PROBE	4.000		LREF 474.8100 IN.
QFL024	0A228 RIGHT PROBE	10.000		BREF 936.6800 IN.
QFL026	0A228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	.000		XMRP 1076.6800 IN. X0
QFL027	0A228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	4.000		YMRP .0000 IN. Y0
QFL028	0A228 RIGHT PROBE - PROBES REVERSED +/- BETA MATCH	10.000		ZMRP 375.0000 IN. Z0
				SCALE .1000

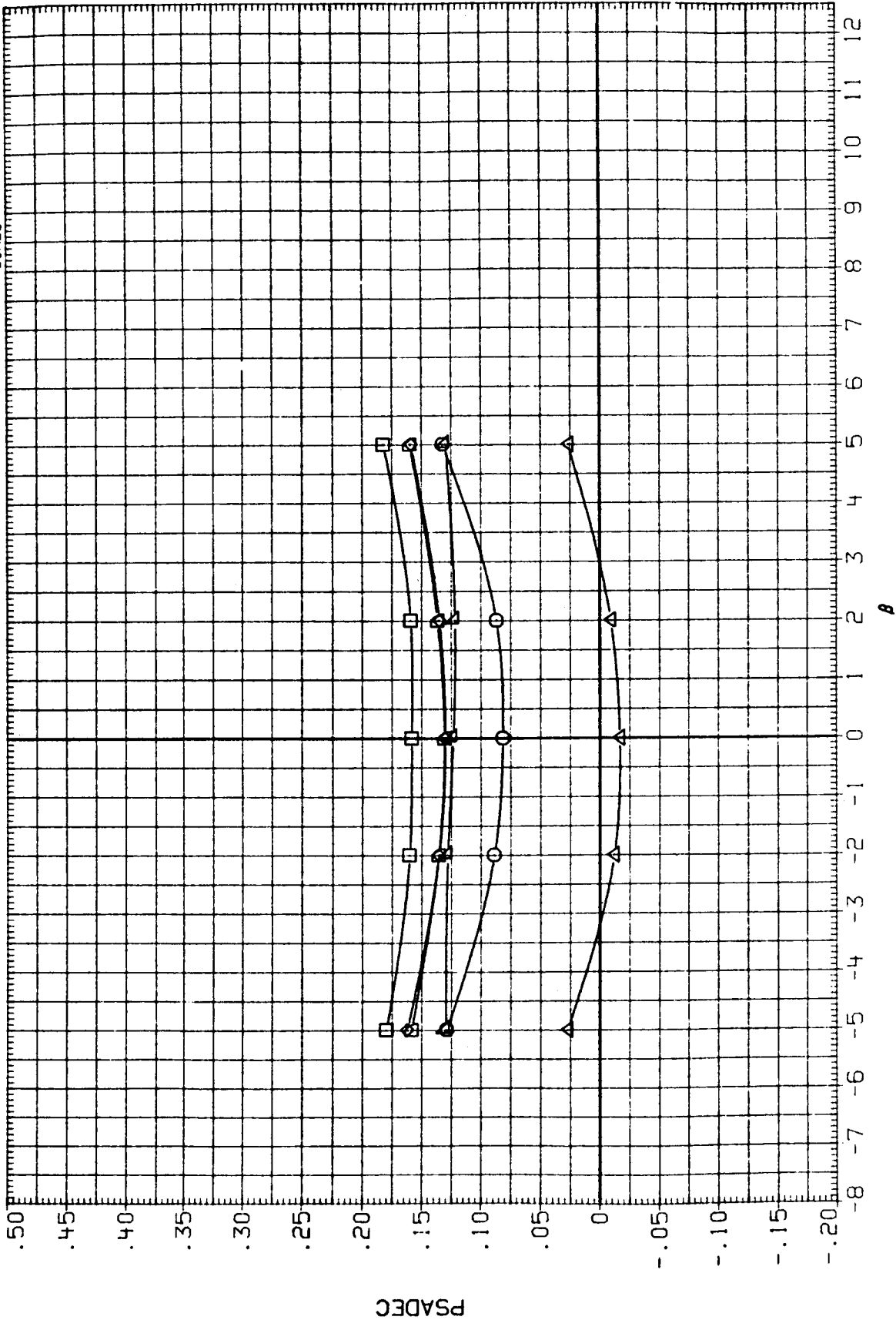


FIG 11 EFFECT OF SIDE PROBE REVERSAL - RN/L = 1.73 BETA SWEEPS

DATA SET SYMBOL

MFL505
MFL509

□

OA228
OA228

CONFIGURATION

B72C15PR4 PR7 PR8
B72C15PR4 PR7 PR8

PROBES STANDARD
PROBES STANDARD

BETA RN/L

.000
.000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.
LREF 474.8100 IN.
BREF 936.6800 IN.
XMRP 1076.6800 IN. XO
YMRP .0000 IN. YO
ZMRP 375.0000 IN. ZO
SCALE .1000

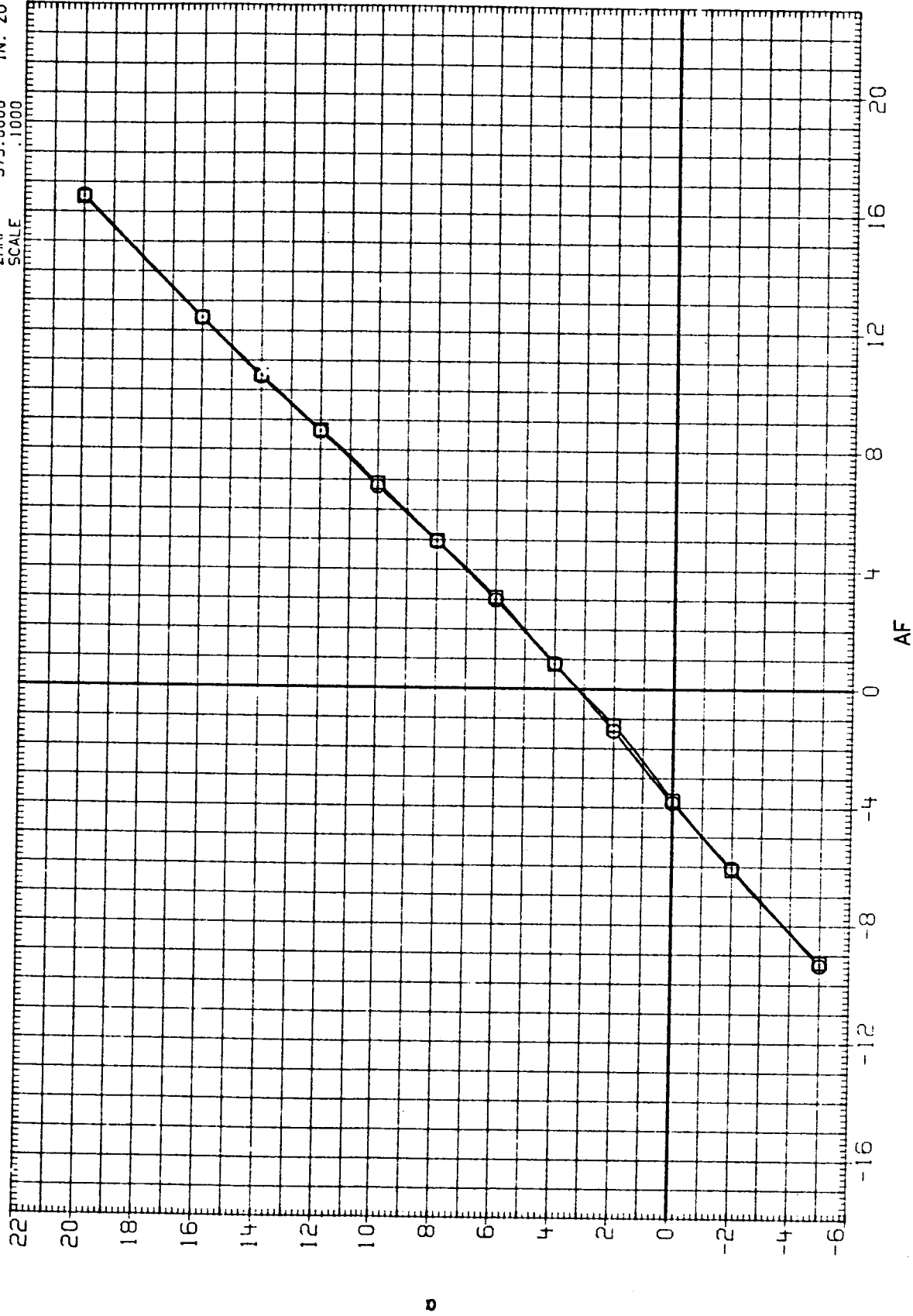


FIG 12 FLIGHT TEST PROBE ALPHA CALIBRATION

(A)MACH = .25

DATA SET SYMBOL
 OFL006 ☐
 OFL011 ☐

CONFIGURATION
 B72C15PR4 PR7 PR8
 B72C15PR4 PR7 PR8

PROBES STANDARD
 PROBES STANDARD

ALPHA
 .000
 .007

RN/L

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8100 IN.
 BREF 936.6800 IN.
 XMRP 1076.6800 IN. XO
 YMRP .0000 IN. YO
 ZMRP 375.0000 IN. ZO
 SCALE .1000

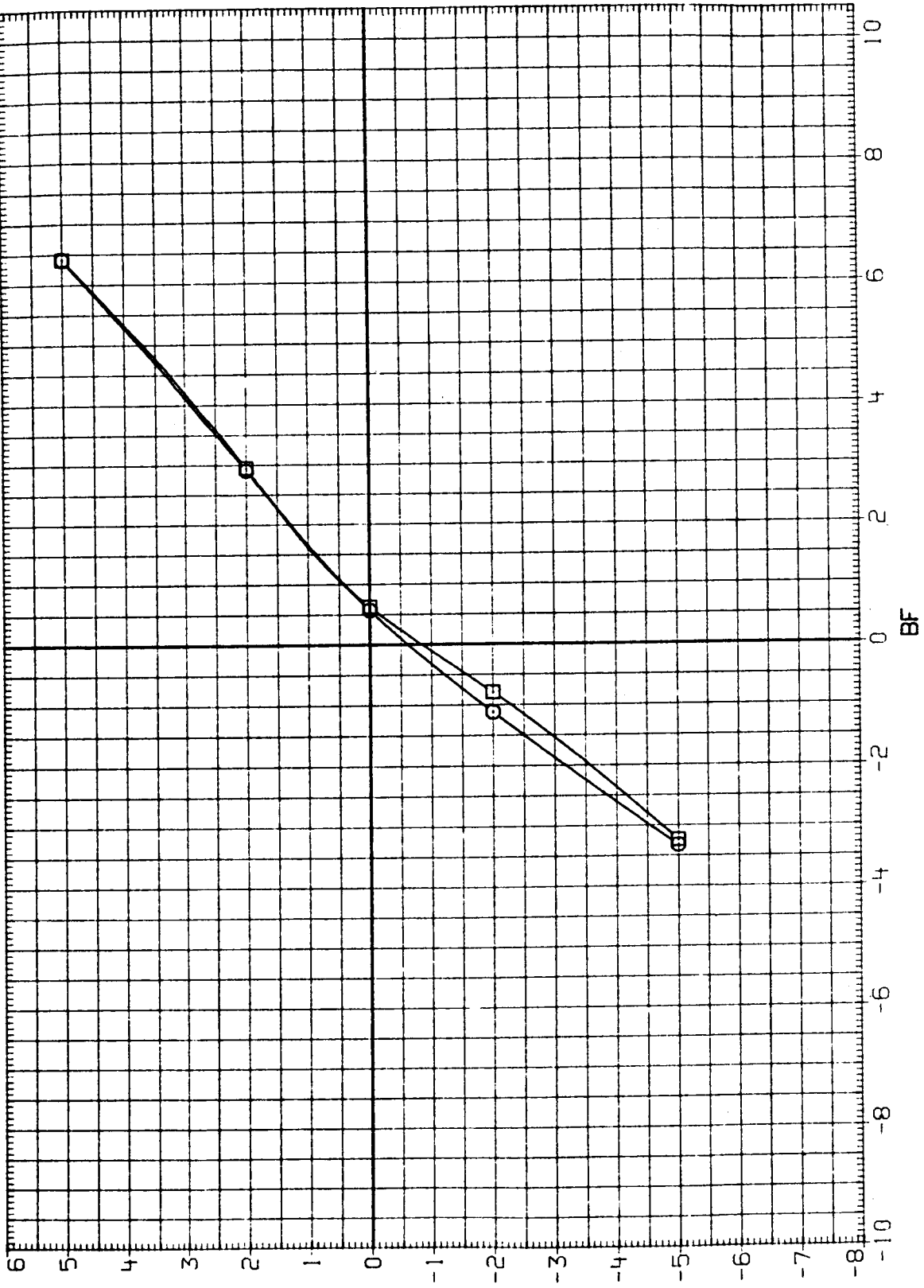


FIG 13 FLIGHT TEST PROBE BETA CALIBRATION ALPHA = 0

(A) MACH = .25

DATA SET SYMBOL		CONFIGURATION		ALPHA		RN/L		REFERENCE INFORMATION	
QFL007	□	0A228	B72C15PR4 PR7 PR8	4.000	PROBES STANDARD	SREF	2690.0000	SO.FT.	
QFL012	□	0A228	B72C15PR4 PR7 PR8	4.000	PROBES STANDARD	LREF	474.8100	IN.	
QFL008	◇	0A228	B72C15PR4 PR7 PR8	10.000	PROBES STANDARD	BREF	936.6800	IN.	XO
QFL013	△	0A228	B72C15PR4 PR7 PR8	10.000	PROBES STANDARD	YMRP	1076.6800	IN.	YO
						ZMRP	375.0000	IN.	ZO
						SCALE	.1000		

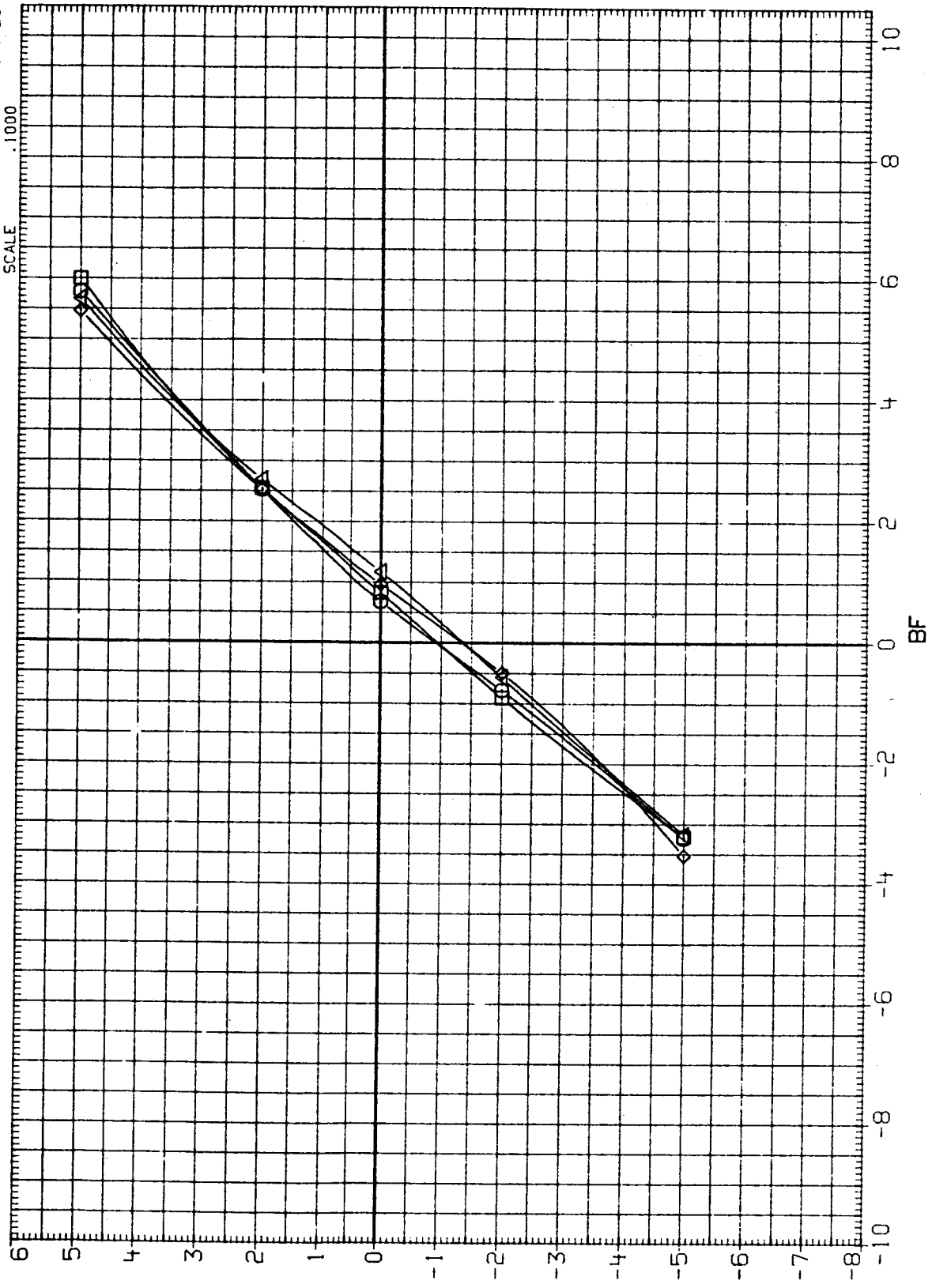


FIG 14 FLIGHT TEST PROBE BETA CALIBRATION ALPHA = 4 AND 10

DATA SET SYMBOL		CONFIGURATION		BETA	RN/L	REFERENCE INFORMATION	
OF L017	□	0A228	B72C15	.000	1.270	SREF	2690.0000 SQ.FT.
OF L029	◇	0A228	B72C15	.000	1.270	LREF	474.8100 IN.
OF L021	△	DATA NOT AVAILABLE	DATA NOT AVAILABLE	.000	1.780	BREF	936.6800 IN.
OF L025	△	DATA NOT AVAILABLE	DATA NOT AVAILABLE	.000	1.780	XMPP	1076.6800 IN. XO
OF L033	△	DATA NOT AVAILABLE	DATA NOT AVAILABLE	.000	1.780	YMRP	.0000 IN. YO
						ZMRP	375.0000 IN. ZO
						SCALE	.1000

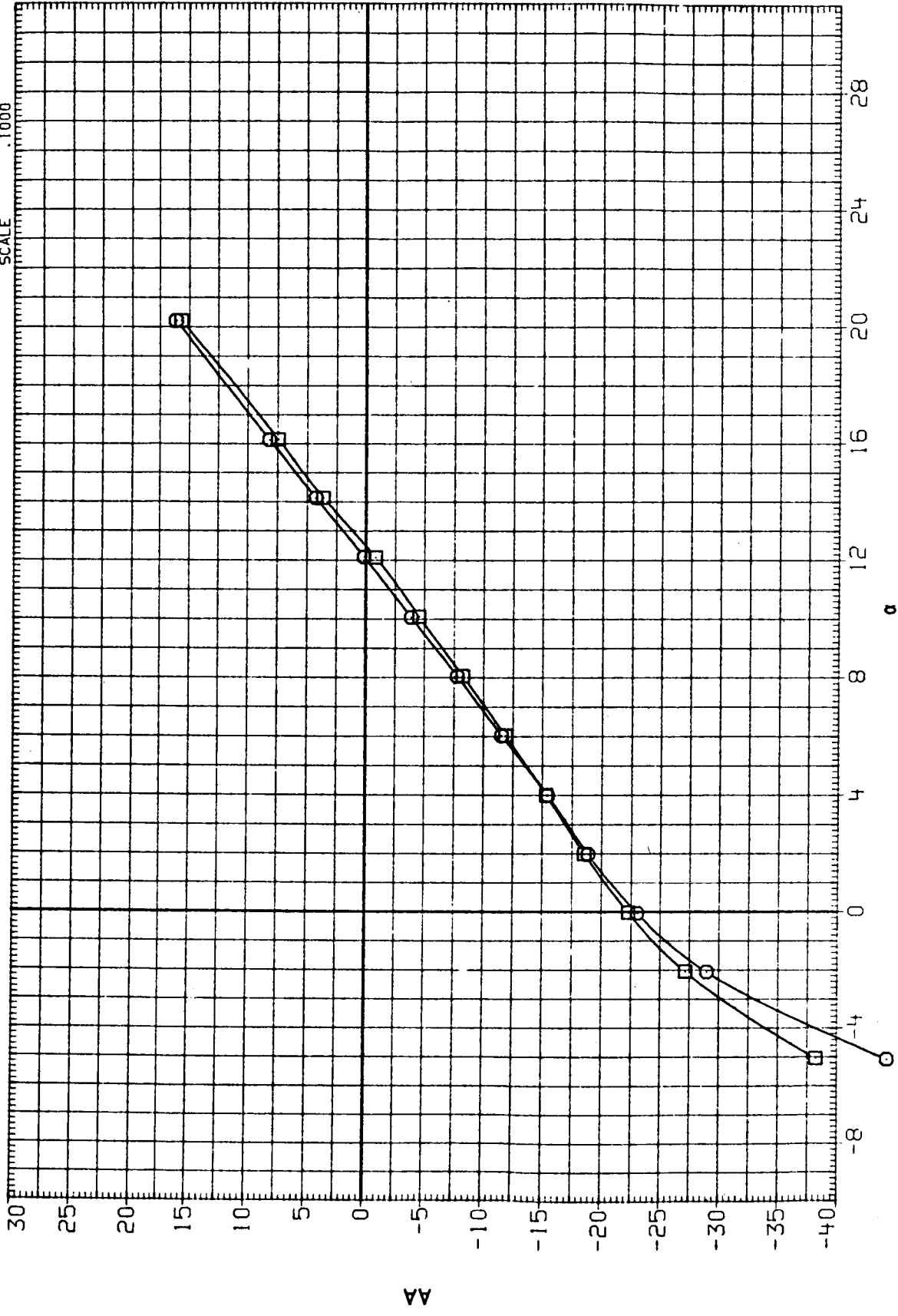


FIG 15 SIDE PROBE ALPHA CALIBRATIONS

(A)MACH = .18

DATA SET SYMBOL		CONFIGURATION		BETA		RN/L		REFERENCE INFORMATION	
OFL017	DATA NOT AVAILABLE	PR7	PR8	.000	1.270	SREF	2690.0000	SQ.FT.	
OFL029	DATA NOT AVAILABLE	PR7R	PR8L	.000	1.270	LREF	474.8100	IN.	
OFL021	OA228	B72C15	PROBES STANDARD	.000	1.780	BREF	936.6800	IN.	
OFL025	OA228	B72C15	PROBES REVERSED	.000	1.780	XMRP	1076.6800	IN.	XO
OFL033	OA228	B72C15	PROBES REVERSED	.000	1.780	YMRP	.0000	IN.	YO
						ZMRP	375.0000	IN.	ZO
						SCALE	.1000		

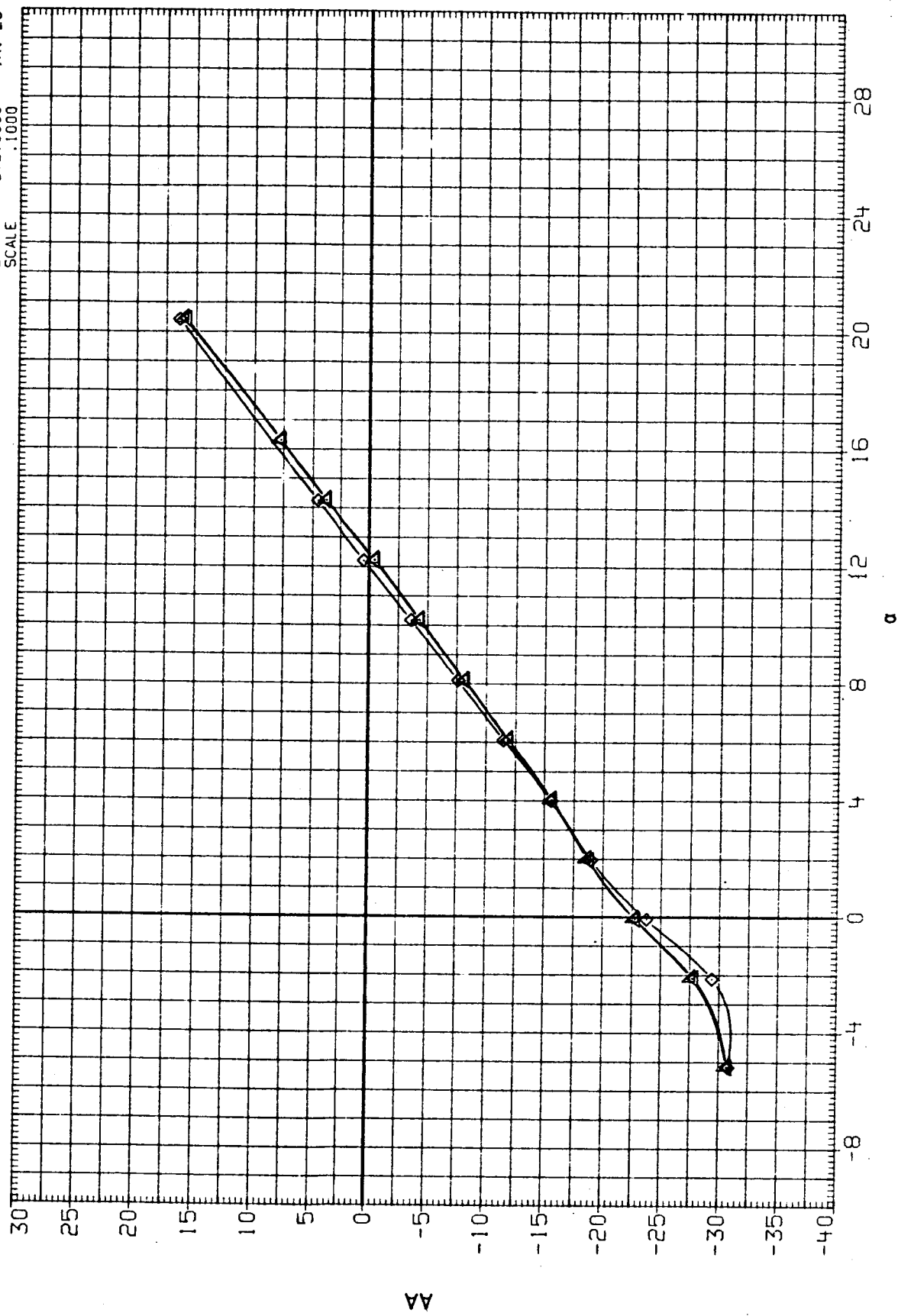


FIG 15 SIDE PROBE ALPHA CALIBRATIONS

(B) MACH = .25

DATA SET SYMBOL	CONFIGURATION	PROBES STANDARD	BETA	RN/L	REFERENCE INFORMATION
OFL005	B72C15PR4 PR7 PR8	PROBES STANDARD	.000	1.780	SREF 2690.0000 SQ.FT.
OFL009	B72C15PR4 PR7 PR8	PROBES STANDARD	.000	1.780	LREF 474.8100 IN.
OFL021	B72C15 PR7 PR8	PROBES STANDARD	.000	1.780	BREF 936.6800 IN.
OFL025	B72C15 PR7R PR8L	PROBES REVERSED	.000	1.780	XMRP 1076.6800 IN. XO
OFL033	B72C15 PR7R PR8L	PROBES REVERSED	.000	1.780	ZMRP .0000 IN. YO
					375.0000 IN. ZO
					SCALE .1000

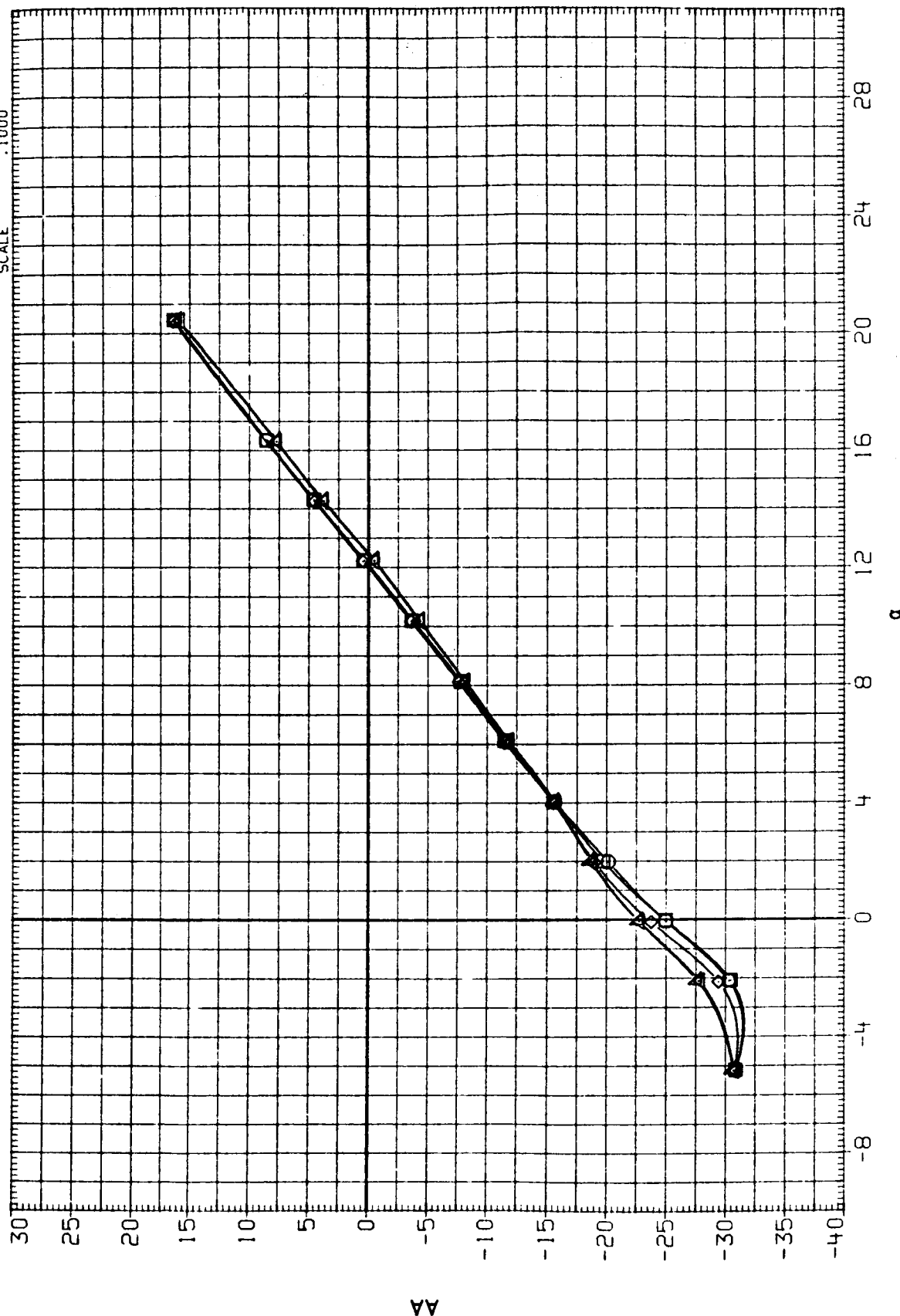


FIG 16 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE ALPHA CALIBRATION

(A) MACH = .25

DATA SET SYMBOL	CONF IGURATION	BETA	RN/L	REFERENCE INFORMATION
OFL005	B72C15PR4 PR7 PR8	.000	1.780	SREF 2690.0000 SQ.FT.
OFL009	B72C15PR4 PR7 PR8	.000	1.780	LREF 474.8100 IN.
OFL021	B72C15 PR7 PR8	.000	1.780	BREF 936.6800 IN.
OFL025	B72C15 PR7R PR8L	.000	1.780	YNRP 1076.6800 IN. XO
OFL033	B72C15 PR7R PR8L	.000	1.780	YNRP .0000 IN. YO
				ZMRP 375.0000 IN. ZO
				SCALE .1000

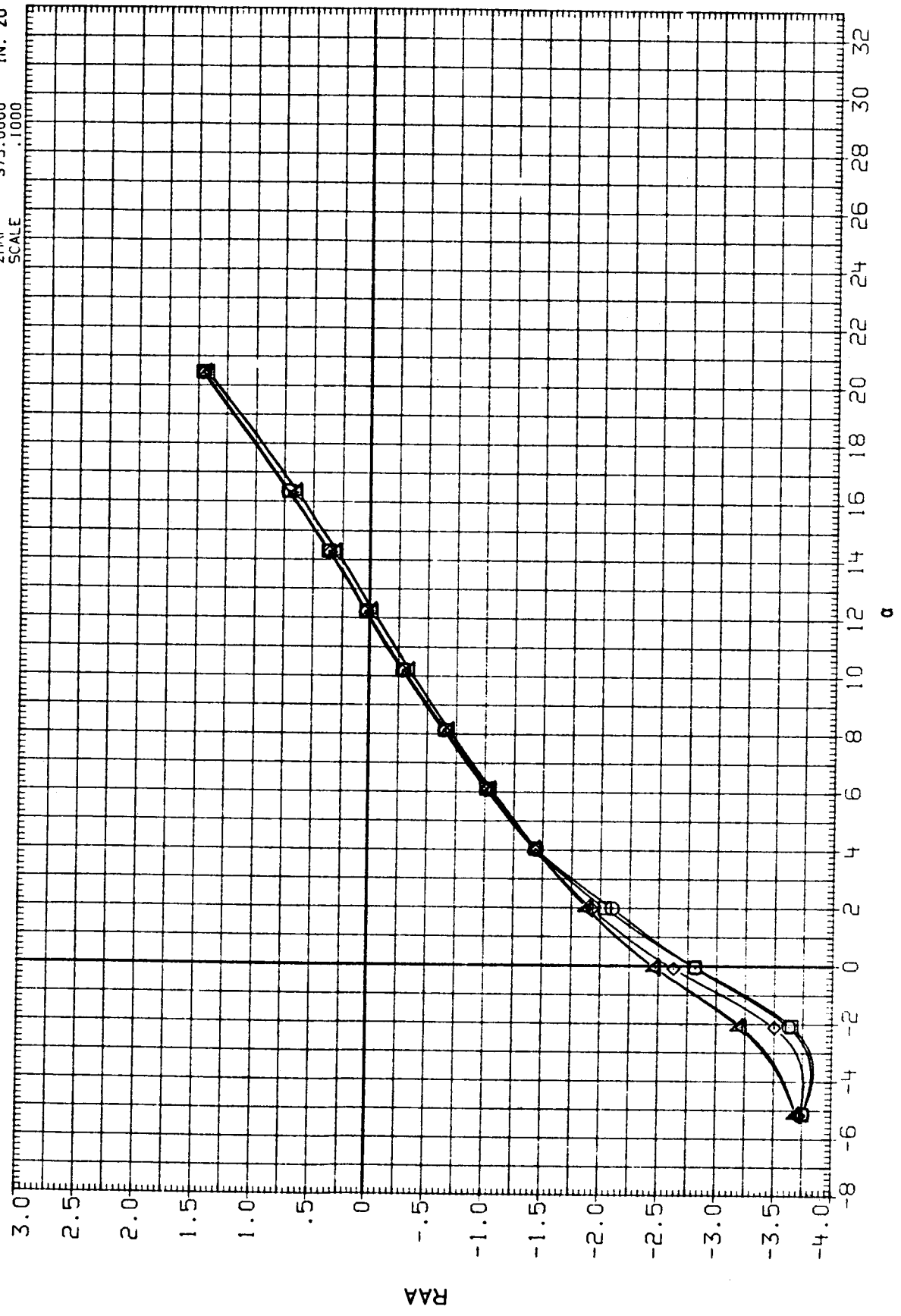


FIG 17 EFFECT OF FLIGHT TEST PROBE ON SIDE PROBE RAX CALIBRATION

(A) MACH = .25

DATA SET SYMBOL			CONFIGURATION			BETA	RN/L	REFERENCE INFORMATION		
QFL021	QFL025	QFL033	B7C15	PR7	PR8			SREF	2690.0000	SQ.FT.
QFL021	QFL025	QFL033	B7C15	PR7R	PR8L	.000	1.780	LREF	474.8100	IN.
			B7C15	PR7R	PR8L	.000	1.780	BREF	936.6800	IN.
								YMRP	1076.0000	IN. XO
								ZMRP	375.0000	IN. YO
								SCALE	.1000	IN. ZO

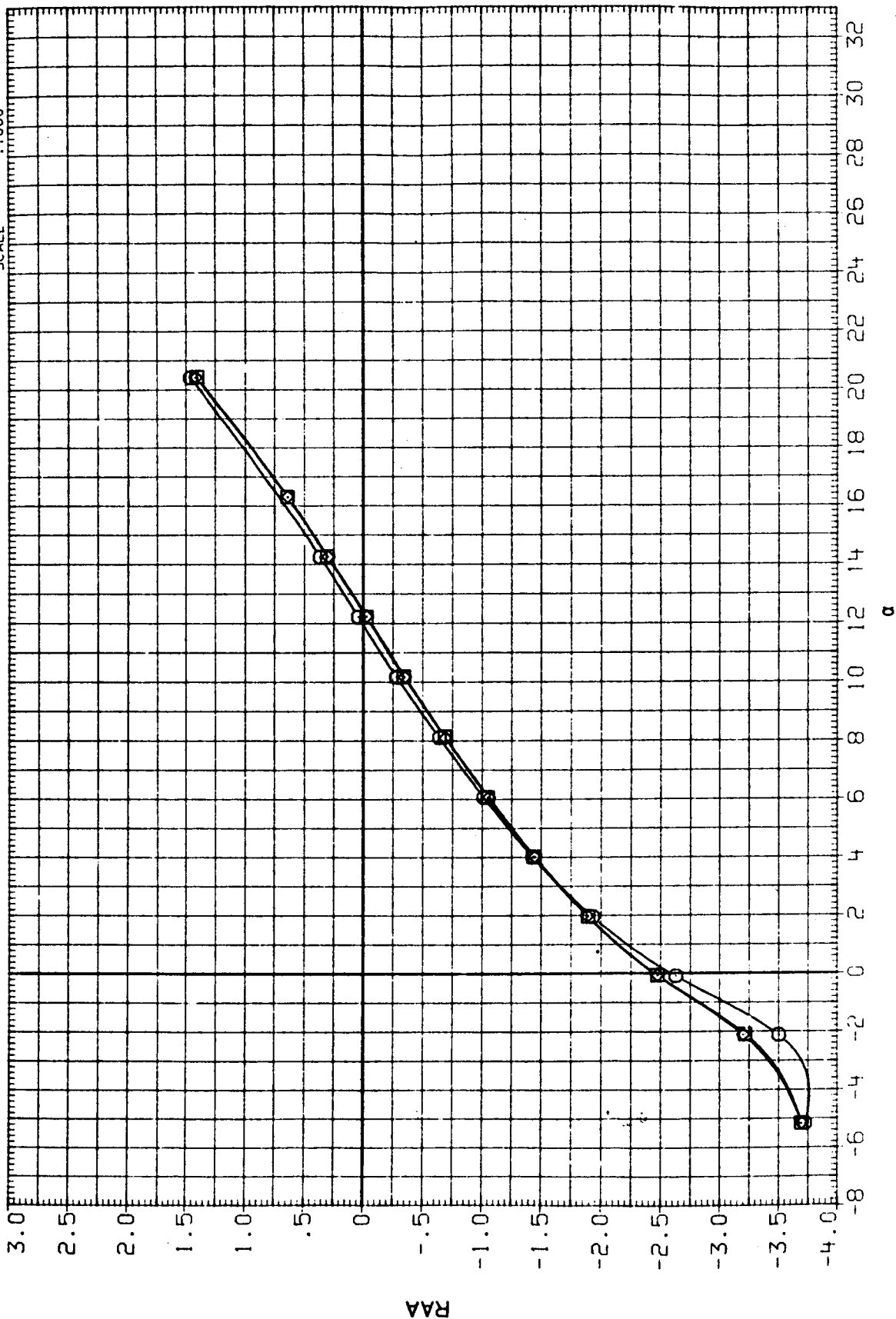


FIG 18 SIDE PROBE RAX CALIBRATION

(A) MACH = .25

DATA SET SYMBOL
 OFLO25 ○
 OFLO33 □
 OFLO34 ◇

CONFIGURATION
 B72C15 PR7R PR8L
 B72C15 PK7R PR8L
 B72C15 PR7R/PR8LM

PROBES REVERSED
 PROBES REVERSED
 PROBES REV. MOD.

BETA
 .000
 .000
 .000

RN/L
 1.780
 1.780
 1.780

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8100 IN.
 BREF 936.6800 IN.
 XMRP 1076.6800 IN. XO
 YMRP .0000 IN. YO
 ZMRP 375.0000 IN. ZO
 SCALE .1000

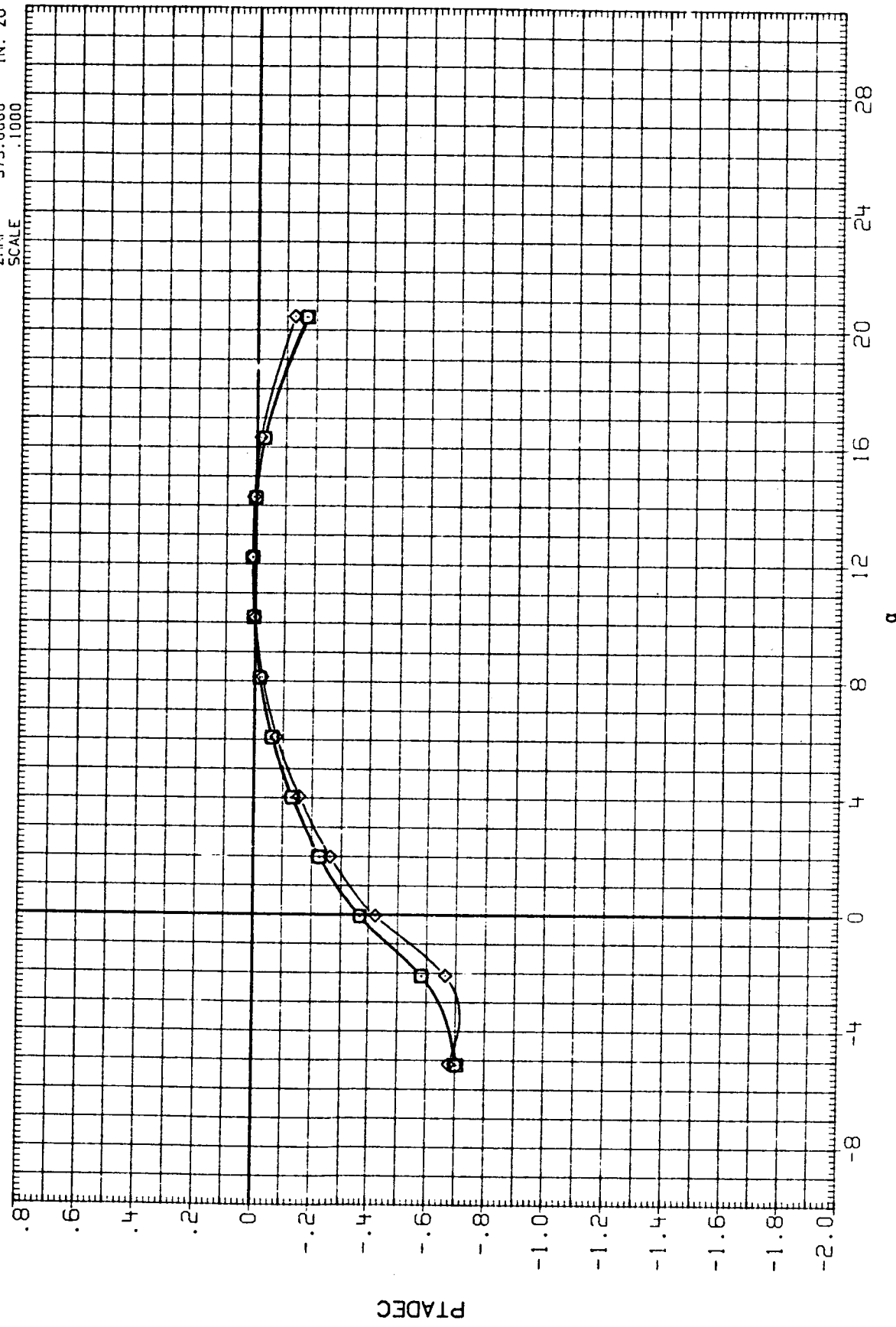


FIG 19 EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE PRESSURES - ALPHA SWEEPS

(A) MACH = .25

REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8100	IN.
BREF	936.6800	IN.
XMRP	1076.6800	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.1000	

BETA

RN/L	1.780
	1.780
	1.780

PROBES REVERSED

PROBES REVERSED	
PROBES REVERSED	
PROBES REV. MOD.	

CONFIGURATION

PR7R PR8L	
PK7R PR8L	
PR7RMPR8LM	

B72C15

B72C15	
B72C15	
B72C15	

OA228

OA228	
OA228	
OA228	

DATA SET SYMBOL

OFL025	○
OFL033	□
OFL034	◇

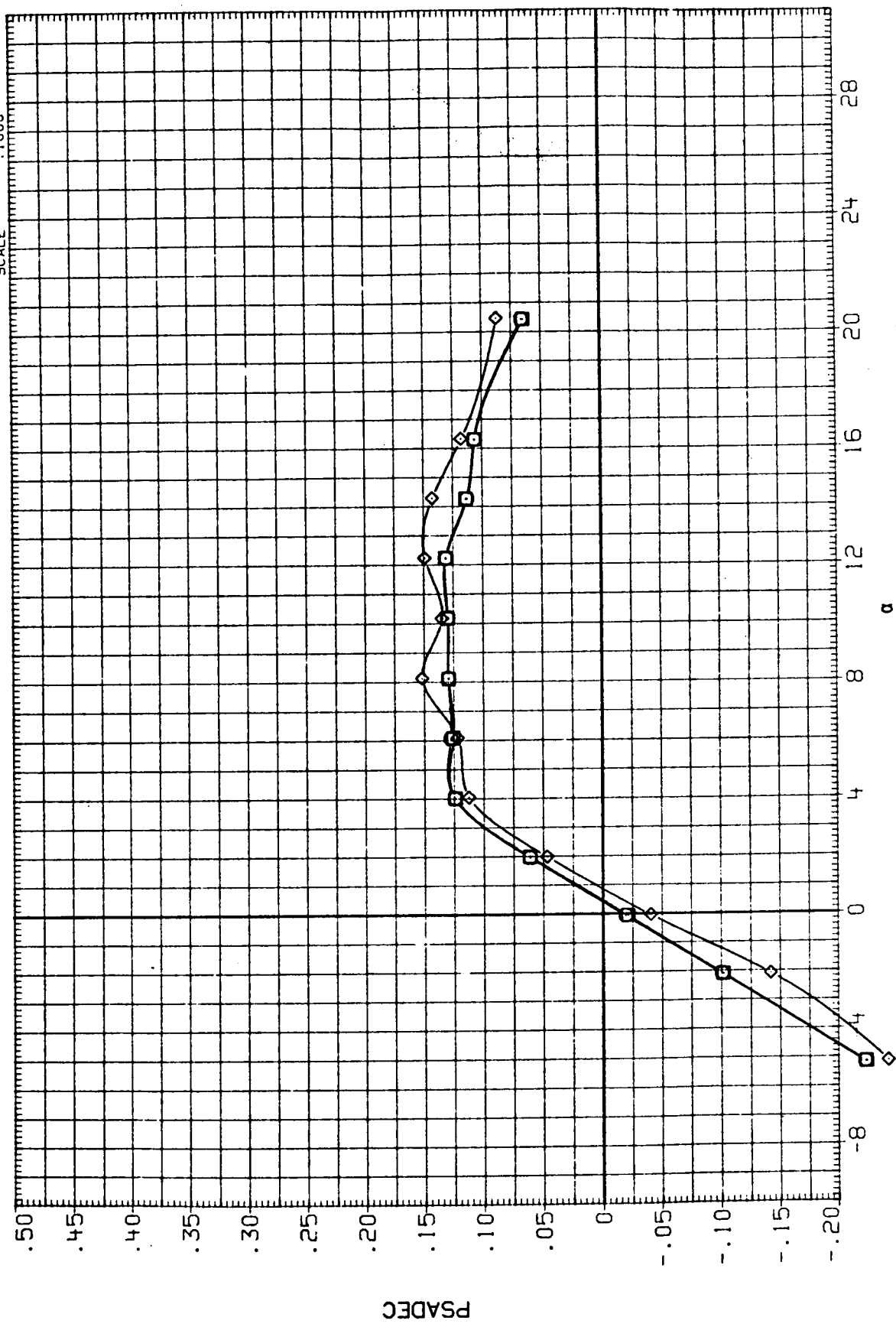


FIG 19 EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE PRESSURES - ALPHA SWEEPS

(A) MACH = .25

DATA SET SYMBOL		CONFIGURATION		ALPHA	RN/L	REFERENCE INFORMATION	
QFLO26	□	OA228 RIGHT PROBE - PROBES REVERSED	+/- BETA MATCH	.000		SREF	2690.0000 SQ.FT.
QFLO27	◇	OA228 RIGHT PROBE - PROBES REVERSED	+/- BETA MATCH	4.000		LREF	474.8100 IN.
QFLO28	◇	OA228 RIGHT PROBE - PROBES REVERSED	+/- BETA MATCH	10.000		BREF	936.6800 IN.
QFLO35	△	OA228 RIGHT PROBE - PROBES REV/MOD	+/- BETA MATCH	.000	1.780	XMRP	1076.6800 IN. XO
QFLO36	△	OA228 RIGHT PROBE - PROBES REV/MOD	+/- BETA MATCH	4.000	1.780	YMRP	.0000 IN. YO
QFLO37	△	OA228 RIGHT PROBE - PROBES REV/MOD	+/- BETA MATCH	10.000	1.780	ZMRP	375.0000 IN. ZO

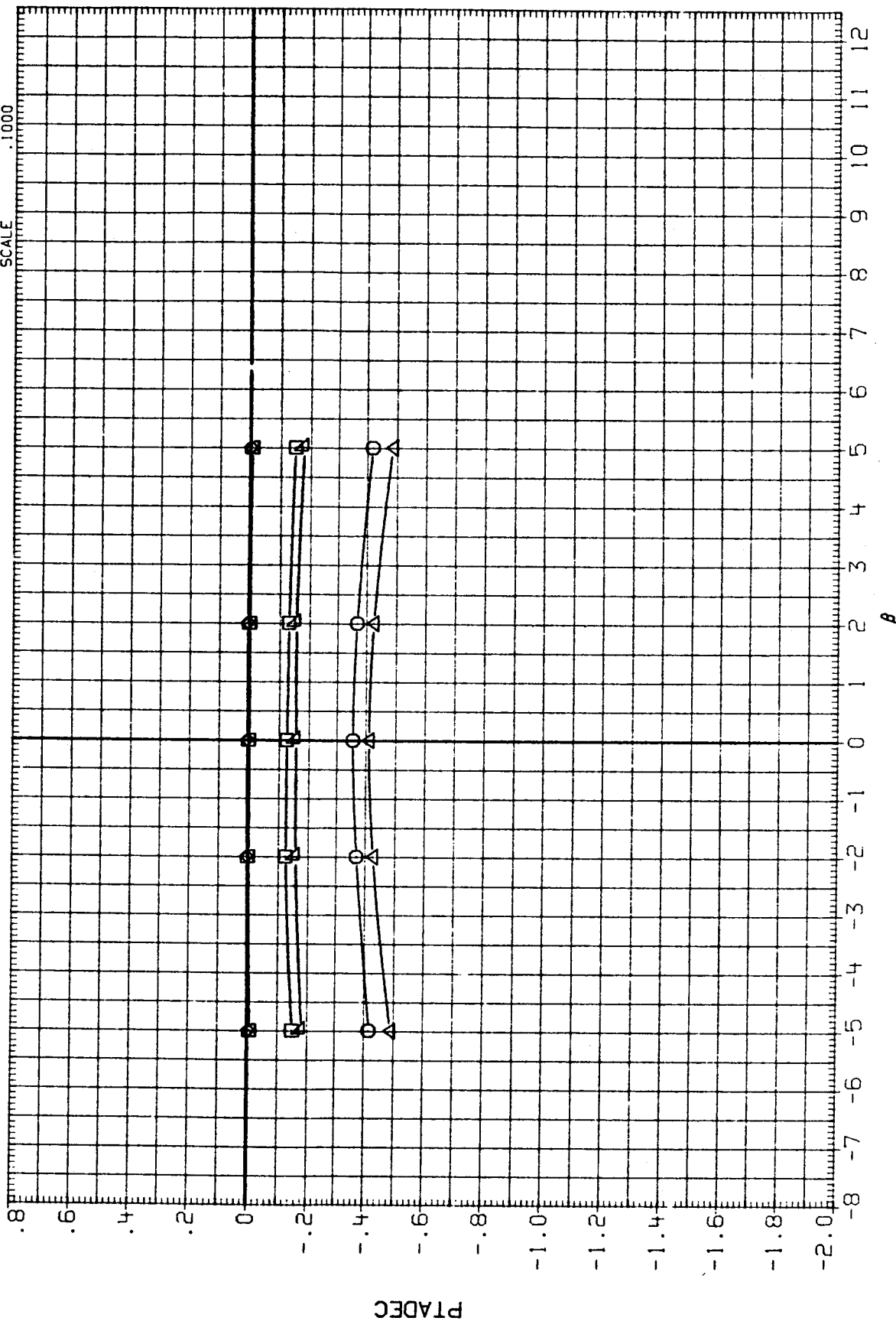


FIG 20 EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE PRESSURES - BETA

DATA SET SYMBOL	CONFIGURATION	ALPHA	RN/L	REFERENCE INFORMATION
OFL026	OA228 RIGHT PROBE-PROBES REVERSED +/- BETA MATCH	.000		SREF 2690.0000 50.FT.
OFL027	OA228 RIGHT PROBE-PROBES REVERSED +/- BETA MATCH	4.000		LREF 474.8100 IN.
OFL028	OA228 RIGHT PROBE-PROBES REVERSED +/- BETA MATCH	10.000		BREF 936.6800 IN.
OFL035	OA228 RIGHT PROBE-PROBES REV/MOD +/- BETA MATCH	.000	1.780	XMRP 1076.6800 IN. X0
OFL036	OA228 RIGHT PROBE-PROBES REV/MOD +/- BETA MATCH	4.000	1.780	YMRP .0000 IN. Y0
OFL037	OA228 RIGHT PROBE-PROBES REV/MOD +/- BETA MATCH	10.000	1.780	ZMRP 375.0000 IN. Z0
				SCALE .1000

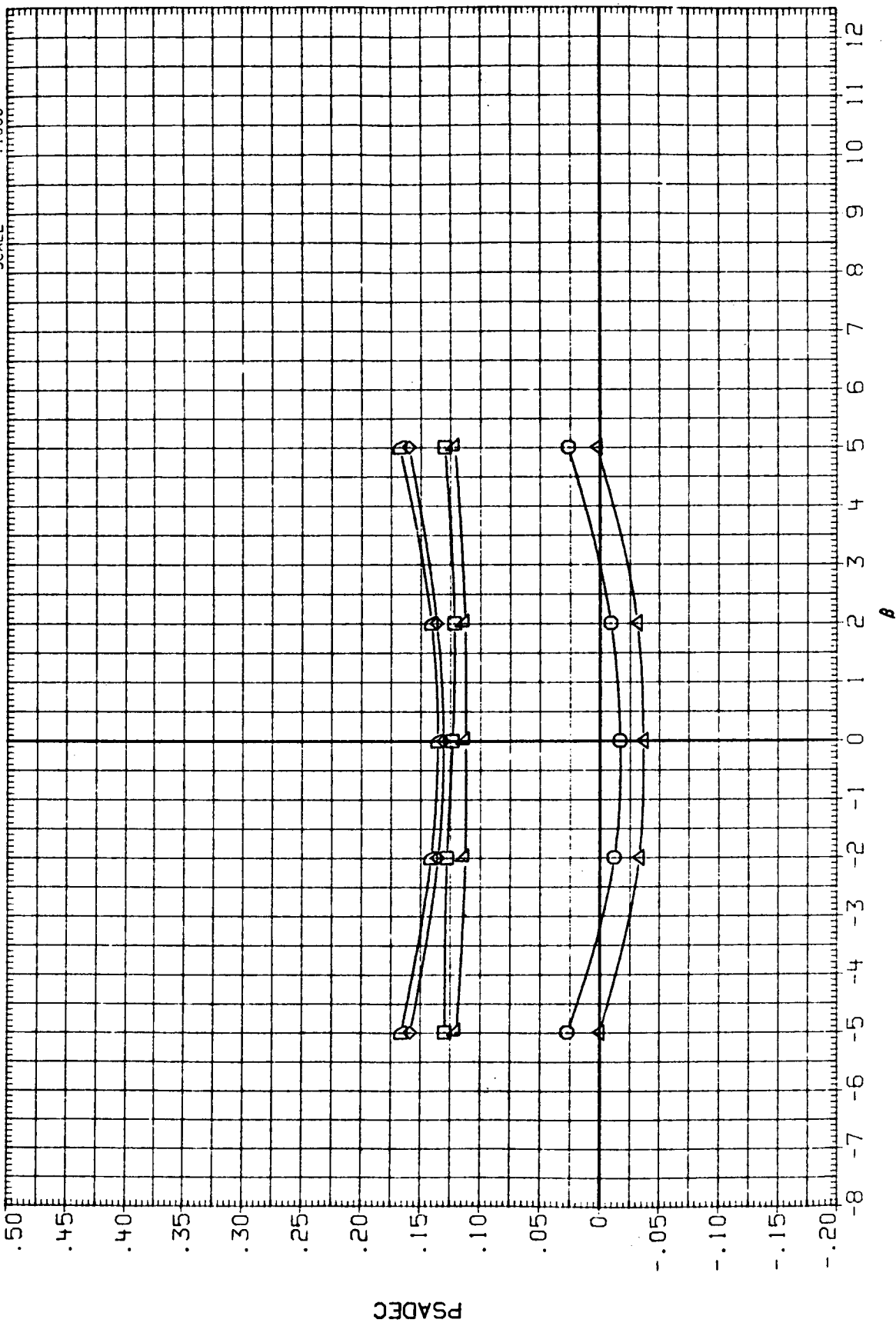


FIG 20 EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE PRESSURES - BETA

DATA SET SYMBOL

QFL025
QFL033
QFL034

OA228
OA228
OA228

CONFIGURATION

B72C15
B72C15
B72C15

PR7R PR8L
PR7R PR8L
PR7R/PR8L/M

PROBES REVERSED
PROBES REVERSED
PROBES REV. MOD.

BETA
1.780
1.780
1.780

RN/L
1.780
1.780
1.780

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8100 IN.
BREF 936.6800 IN.
XMRP 1076.6800 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .1000

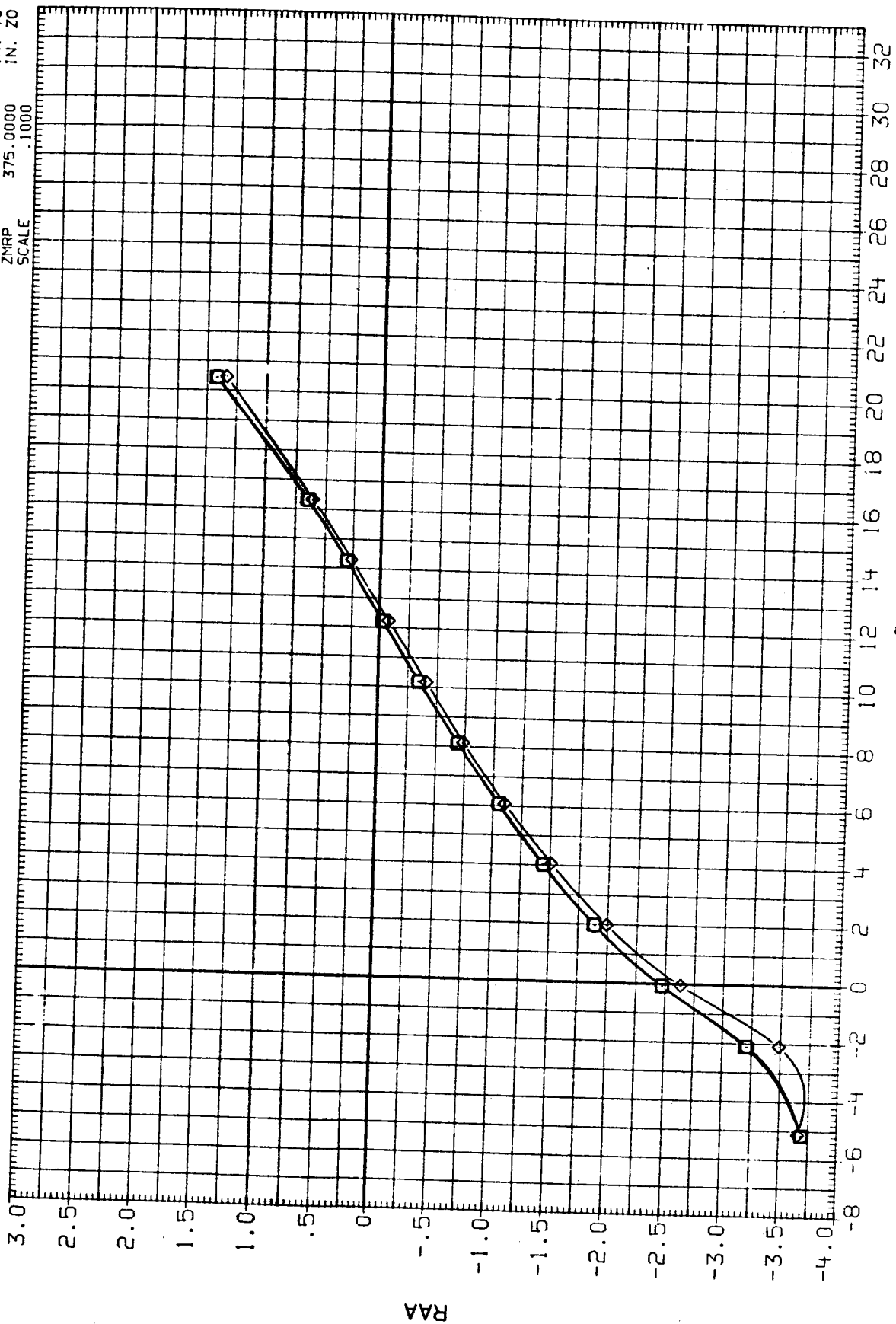


FIG 21 EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE RAX

(A) MACH = .25

DATA SET SYMBOL

OFL025
OFL033
OFL034

OA228
OA228
OA228

CONFIGURATION
B72C15 PR7R PR8L
B72C15 PK7R PR8L
B72C15 PR7RMPR8LM

PROBES REVERSED
PROBES REVERSED
PROBES REV. MOD.

BETA
.000
.000
.000

RN/L
1.780
1.780
1.780

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 47.8100 IN.
BREF 936.6800 IN.
XMRP 1076.6800 IN. XO
YMRP .0000 IN. YO
ZMRP 375.0000 IN. ZO
SCALE .1000

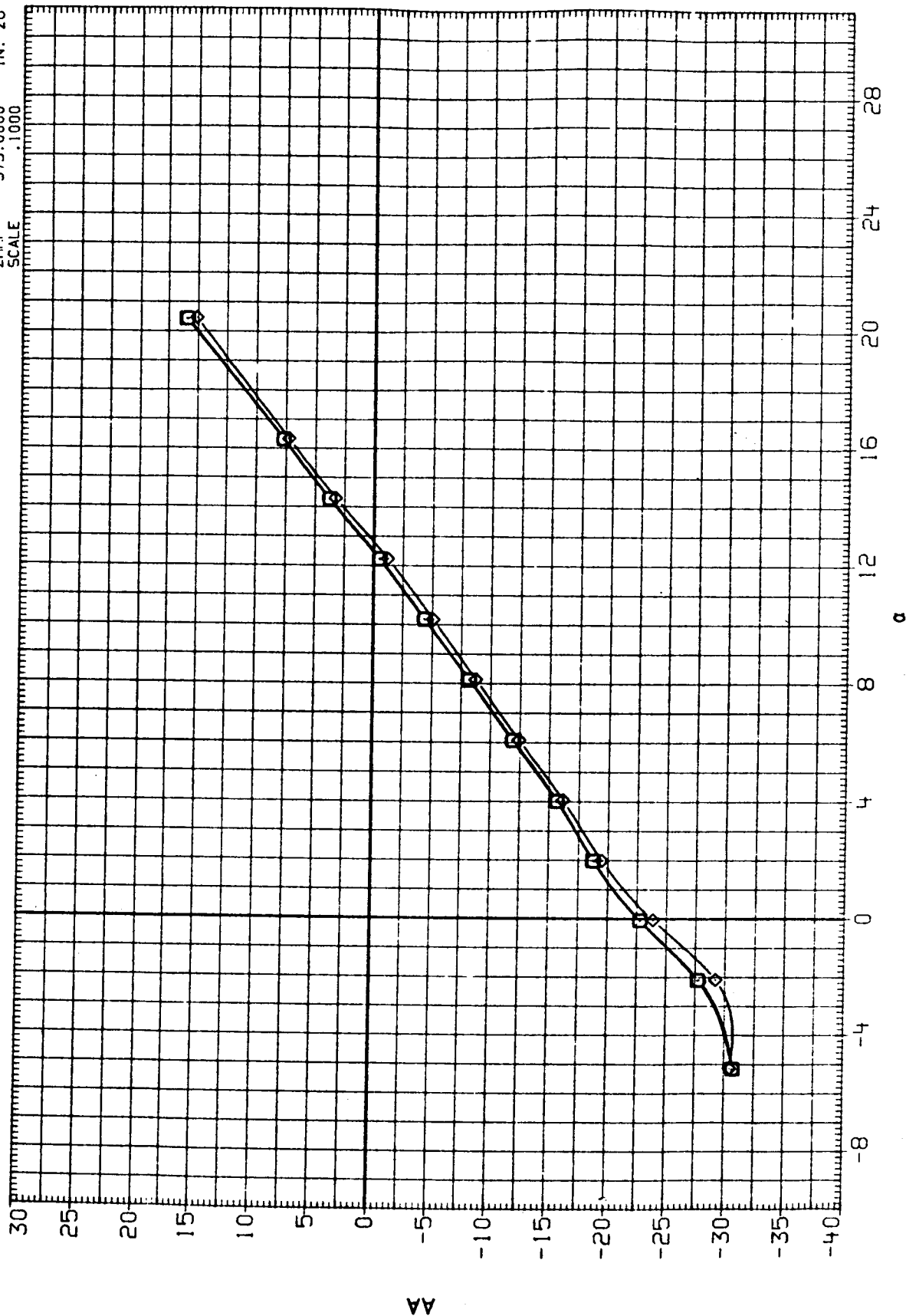


FIG 22 EFFECT OF LINES (PR7M, PR8M) ON SIDE PROBE ALPHA CALIBRATION

(A) MACH = .25

APPENDIX

TABULATED SOURCE DATA

Only measured pressures are presented herein. Calculated parameters are retained in the data base and are available on request from the DMS.

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DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 1

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLC01) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 1/ 0 RN/L = 1.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	XKB
.178	-5.059	14.90330	14.71190	14.71600	14.59740	14.69850	14.68100	14.68210	14.68260	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	-2.028	14.88020	14.72460	14.72860	14.61910	14.70550	14.68160	14.68260	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	-.012	14.91660	14.73010	14.73370	14.63510	14.70940	14.68200	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	1.996	14.96300	14.73180	14.73560	14.65130	14.71040	14.68160	14.68280	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	4.026	14.96300	14.73180	14.73560	14.65130	14.71040	14.68160	14.68280	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	6.031	14.94960	14.73050	14.73670	14.66700	14.70830	14.68130	14.68250	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	8.060	14.98930	14.72740	14.73320	14.70140	14.70660	14.68140	14.68270	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	10.098	15.00110	14.72300	14.72590	14.71990	14.70380	14.68060	14.68190	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	12.119	14.99660	14.71580	14.72320	14.73800	14.69310	14.68000	14.68110	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	14.153	14.98620	14.70690	14.71420	14.75680	14.67640	14.67960	14.68050	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	16.161	14.97370	14.69650	14.70550	14.77450	14.66680	14.67850	14.67920	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
.178	20.239	14.94500	14.67180	14.67880	14.81120	14.64170	14.67680	14.67740	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	14.68320	1.00000
	GRADIENT	.01460	.00115	.00130	.00793	.00046	.00006	.00003	.00003	.00003	.00003	.00003	.00003	.00003	.00003	.00003	.00003	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 2/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	XKB
.178	-5.067	14.99080	14.77530	14.69010	14.62890	14.75600	14.68240	14.68400	14.68460	14.68520	14.68580	14.68640	14.68700	14.68760	14.68820	14.68880	14.68940	1.00000
.178	-.227	14.93430	14.74750	14.71480	14.63310	14.72590	14.68160	14.68260	14.68320	14.68380	14.68440	14.68500	14.68560	14.68620	14.68680	14.68740	14.68800	1.00000
.178	.000	14.91190	14.72900	14.73230	14.63330	14.70810	14.68050	14.68180	14.68240	14.68300	14.68360	14.68420	14.68480	14.68540	14.68600	14.68660	14.68720	1.00000
.178	2.025	14.93860	14.71150	14.75020	14.63020	14.69310	14.68100	14.68220	14.68280	14.68340	14.68400	14.68460	14.68520	14.68580	14.68640	14.68700	14.68760	1.00000
.178	5.065	15.00080	14.68090	14.77870	14.62650	14.66660	14.68140	14.68230	14.68290	14.68350	14.68410	14.68470	14.68530	14.68590	14.68650	14.68710	14.68770	1.00000
	GRADIENT	.00636	-.01309	.01300	-.00138	-.01174	-.00006	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00018	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITTER FOREBODY

PAGE 2

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLC03) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8100 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
MACH = .180

RUN NO. 3/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.068	14.98530	14.77940	14.69100	14.66160	14.75680	14.68170	14.68300	14.66920	14.66700	1.00000
.178	-.229	14.98410	14.75080	14.71870	14.66570	14.72860	14.68100	14.68220	14.66860	14.66650	1.00000
.178	-.001	14.96150	14.73090	14.73560	14.66640	14.70720	14.67960	14.68070	14.66720	14.66700	1.00000
.178	2.025	15.00210	14.71390	14.75350	14.66590	14.69290	14.68130	14.68250	14.66930	14.66750	1.00000
.178	5.065	15.00620	14.68290	14.78160	14.66050	14.67300	14.68030	14.68120	14.66820	14.66770	1.00000
	GRADIENT	.01274	-.01322	.01283	-.00004	-.01238	.00041	.00043	.00060	.00037	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
LREF = 474.8100 IN. YMRP = .0000 IN. Y0
BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
SCALE = .1000

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLC04) (09 SEP 76)

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
MACH = .180

RUN NO. 4/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.071	14.99350	14.77130	14.68280	14.71560	14.74760	14.68100	14.68220	14.66820	14.66630	1.00000
.178	-.231	15.00070	14.74210	14.70770	14.71860	14.72050	14.68030	14.68130	14.66750	14.66620	1.00000
.178	-.002	15.00050	14.72270	14.72500	14.72000	14.70340	14.68060	14.68160	14.66820	14.66720	1.00000
.178	2.024	14.99890	14.70150	14.74290	14.71710	14.68450	14.67850	14.67960	14.66820	14.66630	1.00000
.178	5.065	14.99320	14.67210	14.77270	14.71370	14.65910	14.67860	14.67930	14.66630	14.66680	1.00000
	GRADIENT	-.00079	-.01503	.01294	-.00097	-.01335	-.00089	-.00085	-.00074	-.00015	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 3

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLC05) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
MACH = .250

RUN NO. 5/ 0 RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.146	15.11370	14.73580	14.74320	14.50800	14.70690	14.67630	14.67860	14.65000	14.64800	1.00000
.248	-2.106	15.07200	14.75860	14.76860	14.55070	14.72090	14.67560	14.67830	14.64980	14.64680	1.00000
.248	-.071	15.14430	14.76880	14.77630	14.58010	14.72650	14.67490	14.67740	14.64890	14.64750	1.00000
.248	1.970	15.23490	14.77550	14.78380	14.61540	14.73210	14.67650	14.67910	14.65070	14.64820	1.00000
.248	4.026	15.23190	14.77500	14.78640	14.64800	14.72780	14.67680	14.67930	14.65100	14.64890	1.00000
.248	6.068	15.20090	14.77060	14.78400	14.68040	14.72280	14.67670	14.67930	14.65090	14.64970	1.00000
.248	8.126	15.28530	14.76590	14.78000	14.71580	14.71060	14.67570	14.67840	14.64990	14.64750	1.00000
.248	10.188	15.30540	14.75430	14.76440	14.75140	14.71330	14.67310	14.67520	14.64690	14.64610	1.00000
.248	12.233	15.29630	14.74230	14.76090	14.78940	14.68790	14.67320	14.67520	14.64720	14.64560	1.00000
.248	14.279	15.27580	14.72560	14.73730	14.82560	14.66500	14.67210	14.67390	14.64590	14.64480	1.00000
.248	16.348	15.25020	14.70460	14.72360	14.86240	14.64430	14.67110	14.67280	14.64420	14.64420	1.00000
.248	20.431	15.19580	14.65990	14.67590	14.93820	14.59800	14.67340	14.67460	14.64560	14.64420	1.00000
	GRADIENT	.02789	.00273	.00298	.01601	.00128	.00025	.00023	.00026	.00034	.00000

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLC06) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
MACH = .250

RUN NO. 6/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.132	15.29680	14.86210	14.69510	14.57050	14.82340	14.67910	14.68240	14.65370	14.64870	1.00000
.248	-.250	15.17980	14.80710	14.74260	14.58160	14.76330	14.67920	14.68230	14.65460	14.64940	1.00000
.248	.000	15.14270	14.76980	14.77640	14.58120	14.72770	14.67570	14.67820	14.65110	14.64770	1.00000
.248	2.050	15.18390	14.73360	14.81300	14.57460	14.69640	14.67610	14.67880	14.65150	14.64840	1.00000
.248	5.130	15.30780	14.67210	14.86980	14.56570	14.64370	14.67640	14.67850	14.65190	14.64940	1.00000
	GRADIENT	.00885	-.02644	.02569	-.00311	-.02376	-.00075	-.00082	-.00075	-.00013	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 4

(RFLC07) (09 SEP 76)

PROBES STANDARD

OA228 B72C15PR4 PR7 PR8

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 7/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PM4	XKB
.248	-5.135	15.26640	14.87260	14.69760	14.64020	14.82270	14.68210	14.68540	14.65720	14.65180	1.00000
.248	-.253	15.27760	14.81380	14.75060	14.64680	14.76210	14.67860	14.68160	14.65430	14.64940	1.00000
.248	.000	15.23040	14.77420	14.78460	14.64790	14.72720	14.67640	14.67920	14.65180	14.64910	1.00000
.248	2.050	15.30730	14.73860	14.81830	14.64400	14.69680	14.67670	14.67920	14.65250	14.65010	1.00000
.248	5.131	15.31820	14.67680	14.87460	14.63400	14.64240	14.67560	14.67800	14.65150	14.64940	1.00000
	GRADIENT	.02237	-.02676	.02440	-.00148	-.02314	-.00045	-.00064	-.00035	.00037	.00000

(RFLC08) (09 SEP 76)

PROBES STANDARD

OA228 B72C15PR4 PR7 PR8

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 8/ 0 RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PM4	XKB
.248	-5.143	15.29220	14.85500	14.67930	14.74490	14.80240	14.67800	14.68110	14.65270	14.64870	1.00000
.248	-.264	15.30510	14.79550	14.73340	14.75000	14.75010	14.67440	14.67720	14.64930	14.64650	1.00000
.248	-.004	15.30780	14.75790	14.76790	14.75350	14.71870	14.67600	14.67870	14.65140	14.64800	1.00000
.248	2.050	15.30500	14.71730	14.79960	14.75070	14.68350	14.67460	14.67710	14.65020	14.64800	1.00000
.248	5.133	15.29270	14.65810	14.86060	14.74300	14.62950	14.67470	14.67700	14.65000	14.64900	1.00000
	GRADIENT	-.00055	-.02843	.02357	-.00033	-.02432	-.00021	-.00032	.00002	.00040	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 5

(RFLC09) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 9/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.158	15.11680	14.73650	14.74530	14.50960	14.70850	14.67840	14.68150	14.65330	14.64890	1.00000
.248	-2.084	15.07240	14.75960	14.76980	14.55180	14.72260	14.67810	14.68140	14.65320	14.64990	1.00000
.248	-.040	15.15000	14.77120	14.77920	14.58420	14.72920	14.67850	14.68180	14.65360	14.65040	1.00000
.248	1.985	15.23810	14.77640	14.78580	14.61910	14.73350	14.67890	14.68220	14.65450	14.65080	1.00000
.248	4.032	15.22990	14.77500	14.78540	14.64830	14.72790	14.67660	14.67960	14.65190	14.64940	1.00000
.248	6.108	15.20710	14.77490	14.78800	14.68670	14.72680	14.68140	14.68470	14.65680	14.65230	1.00000
.248	8.129	15.28750	14.76800	14.78270	14.71860	14.71380	14.67800	14.68220	14.65450	14.65090	1.00000
.248	10.190	15.30940	14.75820	14.76980	14.75600	14.71970	14.67800	14.68120	14.65310	14.64960	1.00000
.248	12.218	15.29860	14.74560	14.76350	14.79160	14.69380	14.67700	14.67990	14.65180	14.64890	1.00000
.248	14.291	15.27750	14.72690	14.73950	14.82810	14.66650	14.67490	14.67760	14.64930	14.64770	1.00000
.248	16.337	15.25160	14.70570	14.72450	14.86360	14.64580	14.67340	14.67520	14.64690	14.64680	1.00000
.248	20.448	15.19710	14.65830	14.67530	14.93900	14.59660	14.67340	14.67520	14.64610	14.64480	1.00000
	GRADIENT	.02751	.00252	.00262	.01592	.00099	-.00020	-.00025	-.00015	-.00005	.00000

(RFLC10) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 10/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.156	15.11740	14.73940	14.74790	14.51270	14.71210	14.68040	14.68320	14.65550	14.64840	1.00000
.248	-2.091	15.07360	14.76170	14.77070	14.55350	14.72500	14.67910	14.68220	14.65430	14.64840	1.00000
.248	-.043	15.14900	14.77080	14.77910	14.58450	14.72930	14.67780	14.68110	14.65290	14.64780	1.00000
.248	1.970	15.24020	14.77570	14.78690	14.61880	14.73340	14.67910	14.68220	14.65430	14.64780	1.00000
.248	4.022	15.23190	14.77590	14.78830	14.65090	14.72920	14.67940	14.68280	14.65450	14.64990	1.00000
.248	8.141	15.28690	14.76560	14.78180	14.71940	14.71260	14.67770	14.68050	14.65270	14.64770	1.00000
.248	10.196	15.30890	14.75690	14.76890	14.75670	14.70020	14.67820	14.68120	14.65310	14.64850	1.00000
.248	12.233	15.29820	14.74350	14.76330	14.79270	14.68510	14.67680	14.67980	14.65120	14.64730	1.00000
.248	14.290	15.27710	14.72630	14.74070	14.82860	14.66440	14.67520	14.67790	14.64940	14.64580	1.00000
.248	16.346	15.25260	14.70560	14.72790	14.86610	14.64620	14.67560	14.67800	14.64920	14.64630	1.00000
.248	20.444	15.19580	14.65730	14.67920	14.93910	14.59620	14.67560	14.67800	14.64810	14.64630	1.00000
	GRADIENT	.02779	.00232	.00298	.01604	.00082	.00011	.00014	.00010	.00022	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 7

(RFLC13) (09 SEP 76)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 13/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.141	15.29460	14.85620	14.68220	14.74970	14.79410	14.68160	14.68570	14.65460	14.65130	1.00000
.248	-2.062	15.31100	14.80140	14.73860	14.75860	14.74200	14.68250	14.68650	14.65580	14.65160	1.00000
.248	-.026	15.31100	14.76000	14.76930	14.75970	14.70360	14.68080	14.68410	14.65430	14.65160	1.00000
.248	2.028	15.31020	14.72050	14.80480	14.75600	14.66730	14.68010	14.68340	14.65400	14.65230	1.00000
.248	5.085	15.29550	14.66050	14.86410	14.74510	14.61350	14.67870	14.68200	14.65280	14.65260	1.00000
	GRADIENT	-.00020	-.01978	.01619	-.00064	-.01826	-.00059	-.00076	-.00044	.00017	.00000

(RFLC14) (09 SEP 76)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 14/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.065	14.99180	14.77710	14.69290	14.63260	14.75640	14.68680	14.68870	14.67380	14.67100	1.00000
.178	-2.025	14.93960	14.74860	14.71630	14.63630	14.72790	14.68410	14.68600	14.67140	14.67030	1.00000
.178	-.025	14.91600	14.73150	14.73440	14.63670	14.71140	14.68380	14.68540	14.67110	14.66980	1.00000
.178	2.001	14.95390	14.71410	14.75280	14.63480	14.69640	14.68550	14.68700	14.67300	14.67100	1.00000
.178	5.016	15.00180	14.68220	14.77930	14.62820	14.66910	14.68390	14.68530	14.67130	14.67040	1.00000
	GRADIENT	.00358	-.00857	.00906	-.00037	-.00782	.00035	.00025	.00040	.00017	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 8

(RFLC15) (09 SEP 76)

PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
MACH = .180

RUN NO. 15/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.067	14.98940	14.78200	14.69410	14.66520	14.75980	14.68630	14.68830	14.67340	14.67040	1.00000
.178	-2.026	14.98570	14.75170	14.71990	14.66830	14.72880	14.68370	14.68560	14.67120	14.66980	1.00000
.178	-.024	14.96310	14.73420	14.73960	14.67160	14.71120	14.68470	14.68440	14.67200	14.66990	1.00000
.178	2.001	15.00400	14.71480	14.75490	14.66730	14.69450	14.68390	14.68560	14.67160	14.67060	1.00000
.178	5.015	15.00720	14.68510	14.78410	14.66300	14.67160	14.68400	14.68540	14.67150	14.67010	1.00000
GRADIENT	.00457	.00916	.00869	.00852	.00025	.00852	.00005	.00000	.00010	.00020	.00000

PROBES STANDARD

(RFLC16) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
MACH = .180

RUN NO. 16/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.070	14.99540	14.77300	14.68470	14.71950	14.74950	14.68520	14.68710	14.67220	14.66940	1.00000
.178	-2.031	15.00090	14.74360	14.70880	14.72180	14.72250	14.68380	14.68550	14.67090	14.66980	1.00000
.177	.000	15.00220	14.72460	14.72820	14.72400	14.70540	14.68500	14.68570	14.67230	14.67100	1.00000
.178	2.001	15.00120	14.70340	14.74590	14.72010	14.68650	14.68240	14.68400	14.66990	14.67010	1.00000
.178	5.016	14.99540	14.67480	14.77630	14.71730	14.66150	14.68310	14.68430	14.67060	14.66990	1.00000
GRADIENT	.00008	.00997	.00920	.00893	.00042	.00893	.00034	.00037	.00025	.00008	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 9

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLC17) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

BETA =
 MACH =

PARAMETRIC DATA

RUN NO. 17/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.095	15.00590	14.71430	14.71540	14.59130	14.70830	14.68430	14.68550	14.67180	14.66920	1.00000
.178	-2.080	15.01780	14.72340	14.72610	14.61540	14.71340	14.68400	14.68520	14.67150	14.66990	1.00000
.178	-.061	15.02280	14.72710	14.73160	14.63290	14.70910	14.68480	14.68500	14.67210	14.67010	1.00000
.178	1.961	15.02370	14.73040	14.73410	14.64990	14.70880	14.68410	14.68550	14.67180	14.67030	1.00000
.178	3.981	15.02210	14.73130	14.73520	14.66770	14.71550	14.68420	14.68540	14.67170	14.66980	1.00000
.178	6.017	15.01750	14.72970	14.73470	14.68530	14.71220	14.68310	14.68450	14.67080	14.66930	1.00000
.178	8.039	15.01100	14.72820	14.73450	14.70440	14.71020	14.68400	14.68500	14.67160	14.66960	1.00000
.178	10.049	15.00050	14.72400	14.72850	14.72310	14.70500	14.68430	14.68560	14.67170	14.66940	1.00000
.178	12.105	14.98570	14.71660	14.72490	14.74150	14.69360	14.68370	14.68490	14.67100	14.66990	1.00000
.178	14.123	14.96790	14.70700	14.71550	14.75840	14.67650	14.68160	14.68250	14.66860	14.66790	1.00000
.178	16.131	14.94910	14.69830	14.70800	14.77780	14.66810	14.68200	14.68310	14.66910	14.66750	1.00000
.178	20.205	14.90110	14.67400	14.68360	14.81520	14.65040	14.68240	14.68320	14.66910	14.66800	1.00000
GRADIENT		.00068	.00134	.00147	.00861	.00030	-.00000	.00000	.00001	-.00000	.00000

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLC18) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA =
 MACH =

PARAMETRIC DATA

RUN NO. 18/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.090	15.01380	14.77560	14.68610	14.62940	14.75660	14.68580	14.68770	14.67300	14.66980	1.00000
.178	-2.051	15.02120	14.74640	14.71200	14.63240	14.72650	14.68470	14.68610	14.67200	14.66960	1.00000
.178	-.023	15.02230	14.72690	14.73060	14.63220	14.70890	14.68410	14.68550	14.67160	14.66980	1.00000
.178	1.976	15.02150	14.70820	14.75060	14.63230	14.69260	14.68520	14.68650	14.67270	14.67010	1.00000
.178	5.040	15.01350	14.67820	14.77870	14.62670	14.66630	14.68360	14.68500	14.67120	14.66990	1.00000
GRADIENT		.00008	-.00949	.00958	-.00003	-.00842	.00012	.00010	.00017	.00012	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 10

(RFLC19) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PROBES STANDARD

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 19/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PH1	PH2	PH3	PH4	XKB
.178	-5.092	15.01410	14.78140	14.69190	14.66560	14.75980	14.68650	14.68820	14.67370	14.67010	1.00000
.178	-2.026	15.01980	14.75010	14.71600	14.66680	14.73170	14.68330	14.68480	14.67080	14.66960	1.00000
.178	-.024	15.02270	14.73210	14.73570	14.66850	14.71620	14.68480	14.68620	14.67230	14.67040	1.00000
.178	1.976	15.02130	14.71270	14.75450	14.66780	14.69910	14.68460	14.68580	14.67210	14.66990	1.00000
.178	5.065	15.01250	14.68210	14.78290	14.66130	14.67230	14.68290	14.68390	14.67030	14.66960	1.00000
	GRADIENT	.00038	-.00935	.00962	.00025	-.00815	.00033	.00025	.00032	.00008	.00000

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLC20) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 20/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PH1	PH2	PH3	PH4	XKB
.178	-5.095	14.99010	14.77240	14.68280	14.71830	14.74850	14.68410	14.68540	14.67100	14.66840	1.00000
.178	-2.080	14.99820	14.74340	14.70750	14.72230	14.72220	14.68410	14.68550	14.67120	14.66940	1.00000
.178	-.026	15.00020	14.72420	14.72800	14.72330	14.70500	14.68450	14.68580	14.67180	14.66940	1.00000
.178	1.976	14.99740	14.70240	14.74520	14.72000	14.68570	14.68230	14.68330	14.66960	14.66870	1.00000
.178	5.040	14.99110	14.67350	14.77640	14.71690	14.66060	14.68290	14.68410	14.67050	14.66870	1.00000
	GRADIENT	-.00019	-.01011	.00930	-.00056	-.00900	-.00044	-.00054	-.00039	-.00017	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 11

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLC21) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

BETA = .000 RN/L = 1.780
MACH = .250

PARAMETRIC DATA

RUN NO. 21/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.201	15.31920	14.74040	14.74300	14.50000	14.72820	14.68330	14.68690	14.65630	14.65250	1.00000
.248	-2.137	15.34390	14.76220	14.76680	14.54870	14.74270	14.68610	14.68970	14.65940	14.65560	1.00000
.248	-.096	15.34950	14.76480	14.77380	14.57740	14.72850	14.68140	14.68500	14.65450	14.65260	1.00000
.248	1.954	15.35380	14.77120	14.78210	14.61490	14.72990	14.68250	14.68630	14.65580	14.65300	1.00000
.248	3.993	15.35090	14.77510	14.78700	14.65070	14.72820	14.68330	14.68740	14.65670	14.65420	1.00000
.248	6.056	15.34140	14.76960	14.78620	14.68600	14.72290	14.68170	14.68550	14.65490	14.65300	1.00000
.248	8.097	15.32840	14.76990	14.78530	14.72430	14.71610	14.68360	14.68790	14.65690	14.65370	1.00000
.248	10.157	15.30500	14.75810	14.77130	14.76060	14.70190	14.68200	14.68600	14.65500	14.65330	1.00000
.248	12.203	15.27850	14.74680	14.76690	14.79830	14.68860	14.68210	14.68580	14.65480	14.65230	1.00000
.248	14.237	15.24380	14.72960	14.74460	14.83380	14.66950	14.68010	14.68400	14.65280	14.65140	1.00000
.248	20.402	15.10830	14.66020	14.68210	14.94280	14.59880	14.67820	14.68120	14.64920	14.64870	1.00000
GRADIENT	.00124	.00221	.00337	.01681	.00205	.00036	.00027	.00019	.00033	.00019	.00000

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLC22) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

ALPHA = .000 RN/L = 1.780
MACH = .250

PARAMETRIC DATA

RUN NO. 22/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.181	15.33410	14.86450	14.68800	14.57440	14.81720	14.68670	14.69160	14.65920	14.65450	1.00000
.248	-2.076	15.34980	14.80740	14.73820	14.58260	14.76620	14.68560	14.69040	14.65860	14.65420	1.00000
.248	-.024	15.35210	14.76900	14.77520	14.58200	14.73230	14.68550	14.69030	14.65860	14.65500	1.00000
.248	2.001	15.34830	14.72820	14.81300	14.57810	14.69590	14.68360	14.68810	14.65680	14.65420	1.00000
.248	5.105	15.33500	14.67190	14.87160	14.57170	14.64680	14.68530	14.68930	14.65870	14.65640	1.00000
GRADIENT	.00036	.01943	.01835	.00110	.01724	.00049	.00056	.00044	.00044	.00000	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 12

(RFLC23) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 23/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XK8
.248	-5.185	15.33370	14.87510	14.69480	14.64340	14.81830	14.68590	14.69090	14.65830	14.65350	1.00000
.248	-2.102	15.34900	14.81530	14.75230	14.65030	14.76350	14.68440	14.68940	14.65730	14.65380	1.00000
.248	-.024	15.35080	14.77470	14.78860	14.65180	14.72830	14.68400	14.68870	14.65690	14.65490	1.00000
.248	2.002	15.34820	14.73480	14.82520	14.64820	14.69410	14.68280	14.68760	14.65580	14.65440	1.00000
.248	5.106	15.33500	14.67730	14.88380	14.63910	14.64480	14.68330	14.68780	14.65660	14.65450	1.00000
	GRADIENT	-.00019	-.01961	.01776	-.00051	-.01691	-.00039	-.00044	-.00036	.00015	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 24/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XK8
.248	-5.191	15.28940	14.86110	14.68460	14.75450	14.79940	14.68760	14.69290	14.65960	14.65500	1.00000
.248	-2.083	15.30250	14.80010	14.73620	14.76070	14.74110	14.68310	14.68830	14.65660	14.65300	1.00000
.248	-.025	15.30650	14.76090	14.77270	14.76280	14.70470	14.68490	14.68990	14.65740	14.65500	1.00000
.248	2.003	15.30240	14.71880	14.80510	14.75760	14.66650	14.68260	14.68760	14.65520	14.65470	1.00000
.248	5.084	15.28840	14.66060	14.86570	14.74860	14.61500	14.68240	14.68700	14.65520	14.65490	1.00000
	GRADIENT	-.00004	-.01989	.01686	-.00075	-.01826	-.00012	-.00017	-.00010	.00042	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 13

OA228 B72C15 PR7R PRBL PROBES REVERSED

(RFLC25) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 25/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.185	15.28070	14.70240	14.70490	14.46160	14.68880	14.64710	14.65080	14.61880	14.61520	1.00000
.248	-2.108	15.30270	14.71940	14.73020	14.50690	14.69330	14.64540	14.64920	14.61750	14.61510	1.00000
.248	-.075	15.31040	14.72540	14.73760	14.53940	14.68880	14.64320	14.64660	14.61510	14.61330	1.00000
.248	1.956	15.31440	14.73380	14.74750	14.57620	14.69250	14.64690	14.65100	14.61890	14.61700	1.00000
.248	4.007	15.30970	14.73580	14.74900	14.60930	14.68850	14.64410	14.64790	14.61590	14.61510	1.00000
.248	6.058	15.30230	14.73510	14.74980	14.64670	14.68460	14.64580	14.64970	14.61760	14.61580	1.00000
.248	8.129	15.28910	14.72980	14.74760	14.68470	14.67920	14.64600	14.65000	14.61800	14.61540	1.00000
.248	10.182	15.26870	14.72050	14.73330	14.72160	14.66580	14.64420	14.64800	14.61560	14.61320	1.00000
.248	12.213	15.23800	14.70700	14.72780	14.75840	14.65180	14.64290	14.64670	14.61430	14.61300	1.00000
.248	14.259	15.20440	14.69210	14.70660	14.79330	14.64000	14.64280	14.64620	14.61330	14.61320	1.00000
.248	16.298	15.16390	14.66880	14.69250	14.82910	14.62540	14.64110	14.64460	14.61170	14.61130	1.00000
.248	20.424	15.07010	14.62390	14.64490	14.90490	14.56750	14.64140	14.64430	14.61080	14.60970	1.00000
	GRADIENT	.00122	.00283	.00325	.01688	-.00141	-.00001	.00002	-.00005	.00018	.00000

OA228 B72C15 PR7R PRBL PROBES REVERSED

(RFLC26) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 26/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.156	15.29350	14.82390	14.64730	14.53480	14.77750	14.64710	14.65260	14.61810	14.61440	1.00000
.248	-2.049	15.30960	14.76720	14.70410	14.54160	14.72650	14.64710	14.65220	14.61860	14.61510	1.00000
.248	.001	15.31060	14.72800	14.73800	14.54140	14.69130	14.64550	14.65050	14.61720	14.61510	1.00000
.248	2.026	15.30810	14.68780	14.77360	14.53720	14.65550	14.64370	14.64850	14.61530	14.61400	1.00000
.248	5.131	15.29310	14.63020	14.83040	14.52930	14.60540	14.64410	14.64880	14.61610	14.61540	1.00000
	GRADIENT	-.00037	-.01948	.01705	-.00108	-.01742	-.00083	-.00091	-.00081	-.00027	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 15

0A228 B72C15 PR7R PR8L PROBES REVERSED

(RFLC29) (09 SEP 76)

REFERENCE DATA

SREF	=	2690.0000	SO. FT.	XMRP	=	1076.6800	IN. X0
LREF	=	474.8100	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.1000					

BETA	=	.000	RN/L	=	1.270
MACH	=	.180			

PARAMETRIC DATA

MACH	ALPHA	P1	P5	P6	P10	P13	P41	P42
.178	-5.073	14.96640	14.67490	14.67760	14.55450	14.66820	14.64800	14.65380
.178	-2.069	14.97820	14.68330	14.68720	14.57730	14.67410	14.64730	14.65000
.178	-.036	14.98370	14.68920	14.69400	14.59600	14.67150	14.64640	14.65060
.178	1.977	14.98330	14.69030	14.69000	14.61100	14.67030	14.64820	14.65060
.178	3.998	14.98320	14.69250	14.70030	14.63100	14.67570	14.64600	14.64820
.178	6.017	14.97700	14.69060	14.69570	14.64590	14.66620	14.64710	14.64950
.178	8.049	14.97190	14.69100	14.69800	14.66770	14.66640	14.64530	14.64790
.178	10.068	14.96070	14.68550	14.69020	14.68500	14.65970	14.64870	14.65110
.178	12.091	14.94640	14.67800	14.68680	14.70290	14.65760	14.64750	14.64990
.178	14.123	14.92870	14.66870	14.67820	14.72100	14.64720	14.64620	14.64840
.178	16.140	14.90950	14.65920	14.67040	14.73930	14.63810	14.64510	14.64740
.178	20.207	14.89860	14.64320	14.64320	14.77380	14.61350	14.64560	14.64750
GRADIENT		.00072	.00139	.00209	.00871	.00018	-.00010	-.00019

0A228 B72C15 PR7R PR8L PROBES REVERSED

(RFLC30) (09 SEP 76)

REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN. X0
LREF	=	474.8100	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.1000					

ALPHA	=	.000	RN/L	=	1.270
MACH	=	.180			

PARAMETRIC DATA

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2
.178	-5.090	14.97390	14.73630	14.64820	14.50900	14.71360	14.64780	14.65050
.178	-2.050	14.98160	14.70770	14.67480	14.59480	14.68790	14.64760	14.65020
.178	-.023	14.98350	14.68930	14.69350	14.59530	14.67060	14.64710	14.64950
.178	2.001	14.98110	14.68920	14.71200	14.59440	14.65400	14.64740	14.64960
.178	5.065	14.97350	14.63990	14.74020	14.58900	14.62820	14.64660	14.64880
GRADIENT		-.00012	-.00950	.00918	-.00010	-.00837	-.00005	-.00015

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 16

OA228 B72C15 PR7R PR8L PROBES REVERSED

(RFLC31) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 31/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PH1	PH2	PH3	PH4	XKB
.178	-5.092	14.97500	14.74230	14.65260	14.62690	14.72060	14.64880	14.65130	14.63440	14.63180	1.00000
.178	-2.026	14.98050	14.71140	14.68010	14.62810	14.69290	14.64600	14.64830	14.63170	14.63050	1.00000
.178	.001	14.98400	14.69480	14.70150	14.63170	14.67750	14.64920	14.65150	14.63530	14.63300	1.00000
.178	2.001	14.98250	14.67500	14.72000	14.62940	14.65950	14.64880	14.65120	14.63490	14.63270	1.00000
.178	5.064	14.97540	14.64670	14.74820	14.62590	14.63350	14.64860	14.65090	14.63490	14.63290	1.00000
	GRADIENT	.00050	-.00904	.00991	.00033	-.00829	.00070	.00072	.00080	.00055	.00000

OA228 B72C15 PR7R PR8L PROBES REVERSED

(RFLC32) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 32/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PH1	PH2	PH3	PH4	XKB
.178	-5.094	14.95350	14.73580	14.64760	14.68190	14.70680	14.64930	14.65150	14.63480	14.63110	1.00000
.178	-2.028	14.95870	14.70480	14.67070	14.68370	14.67730	14.64650	14.64870	14.63210	14.63110	1.00000
.178	.000	14.96040	14.68440	14.68940	14.68400	14.65860	14.64630	14.64840	14.63210	14.63110	1.00000
.178	2.001	14.95850	14.66420	14.70820	14.68230	14.64000	14.64580	14.64770	14.63170	14.63080	1.00000
.178	5.066	14.95150	14.63500	14.73830	14.67810	14.61360	14.64570	14.64760	14.63160	14.63150	1.00000
	GRADIENT	-.00005	-.01007	.00931	-.00035	-.00926	-.00017	-.00025	-.00010	-.00007	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 17

(RFLC33) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

MACH		ALPHA		P1		P5		P6		P10		P13		P11		P12		P13		P14		XKB		
.248	-5.183	15.28120	14.70250	14.70600	14.46300	14.68940	14.64910	14.65410	14.61920	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310	14.61310
.248	-2.125	15.30620	14.72400	14.72810	14.51020	14.70350	14.64960	14.65510	14.61970	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340	14.61340
.247	-0.076	15.31280	14.73180	14.73930	14.54310	14.70690	14.64850	14.65430	14.61840	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260	14.61260
.247	1.978	15.31690	14.73900	14.74960	14.58080	14.70750	14.65130	14.65700	14.62120	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550	14.61550
.247	4.009	15.31340	14.73910	14.75110	14.61300	14.69130	14.64920	14.65480	14.61910	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380	14.61380
.248	6.063	15.30290	14.73040	14.74820	14.64570	14.68590	14.64470	14.65020	14.61420	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300
.247	8.092	15.29060	14.73230	14.74900	14.68730	14.68280	14.64990	14.65560	14.61930	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300	14.61300
.248	10.164	15.26910	14.72260	14.73550	14.72410	14.68100	14.64850	14.65420	14.61810	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250	14.61250
.248	12.226	15.23990	14.70880	14.72960	14.76100	14.66810	14.64700	14.65300	14.61620	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140	14.61140
.248	14.247	15.20500	14.69020	14.70660	14.79560	14.64710	14.64400	14.64910	14.61260	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910	14.60910
.248	16.301	15.16490	14.66980	14.69210	14.83060	14.62650	14.64280	14.64810	14.61110	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810	14.60810
.248	20.418	15.07070	14.62140	14.64570	14.90760	14.56380	14.64350	14.64830	14.61070	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650	14.60650
	GRADIENT	.00126	.00257	.00388	.01692	-.00175	.00008	.00009	.00005	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020	.00020

RUN NO. 33/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 18

(RFLC34) (09 SEP 76)

REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN. X0
LREF	=	474.8100	IN.	YMRP	=	.0000	IN. Y0
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN. Z0
SCALE	=	.1000					

BETA	=	.000	RN/L	=	1.780
MACH		.250			

PARAMETRIC DATA

RUN NO. 34/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PM4	XXB
.249	-5.156	15.26530	14.76510	14.77950	14.44630	14.62220	14.63340	14.62920	14.60450	14.60070	1.00000
.248	-2.101	15.29240	14.76730	14.79460	14.49740	14.62310	14.63650	14.63230	14.60800	14.60270	1.00000
.248	-.054	15.29980	14.77230	14.81940	14.53060	14.62410	14.63670	14.63230	14.60840	14.60310	1.00000
.248	1.979	15.30290	14.77470	14.85450	14.56520	14.62840	14.63570	14.63120	14.60740	14.60250	1.00000
.249	4.043	15.29740	14.78560	14.83950	14.59700	14.62960	14.63370	14.62900	14.60540	14.60300	1.00000
.248	6.075	15.29020	14.79010	14.81200	14.63460	14.63070	14.63330	14.62930	14.60500	14.60000	1.00000
.248	8.119	15.27580	14.78590	14.81270	14.67230	14.63120	14.63450	14.62990	14.60620	14.60100	1.00000
.248	10.160	15.25410	14.77270	14.80150	14.70820	14.63220	14.63420	14.62930	14.60590	14.60100	1.00000
.248	12.227	15.22520	14.75760	14.75870	14.74570	14.63300	14.63280	14.62830	14.60430	14.60050	1.00000
.249	14.286	15.18960	14.74070	14.73200	14.78170	14.63350	14.63020	14.62540	14.60140	14.59820	1.00000
.249	16.321	15.14870	14.71530	14.69050	14.81640	14.63440	14.62970	14.62290	14.59860	14.59700	1.00000
.248	20.451	15.05490	14.64660	14.63700	14.89260	14.63570	14.62970	14.62350	14.59940	14.59600	1.00000
GRADIENT		.00088	.00280	.00828	.01629	.00116	-.00046	-.00049	-.00043	.00001	

0A228 B72C15 PR7RMPR8LM PROBES REV. MOD.

(RFLC35) (09 SEP 76)

REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.6800	IN.	XO
LREF	=	474.8100	IN.	YMRP	=	.0000	IN.	YO
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	ZO
SCALE	=	.1000						

ALPHA	=	.000	RN/L	=	1.780
MACH	=	.250			

PARAMETRIC DATA

RUN NO. 35/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	KXB
.248	5.182	15.28100	14.85830	14.77240	14.52110	14.64210	14.63630	14.63190	14.60750	14.60140	1.00000
.249	-2.097	15.29450	14.84120	14.79490	14.52630	14.64320	14.63290	14.62860	14.60400	14.59950	1.00000
.249	-.033	15.29780	14.80770	14.81880	14.52780	14.64460	14.63330	14.62860	14.60470	14.60110	1.00000
.249	2.015	15.29480	14.77770	14.83980	14.52490	14.64630	14.63380	14.62880	14.60520	14.60210	1.00000
.249	5.112	15.28170	14.73130	14.88580	14.51710	14.64660	14.63450	14.62900	14.60600	14.60300	1.00000
GRADIENT		.00007	-.01544	.01092	-.00034	.00075	.00022	.00015	.00029	.00003	

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 19

(RFLC36) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 36/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.179	15.28140	14.87740	14.77680	14.59110	14.65050	14.63670	14.63240	14.60790	14.60090	1.00000
.249	-2.084	15.29330	14.85720	14.81020	14.59660	14.65120	14.63230	14.62740	14.60350	14.59940	1.00000
.249	-0.042	15.29720	14.81690	14.85070	14.59700	14.65270	14.63300	14.62800	14.60430	14.60020	1.00000
.248	2.011	15.29330	14.79640	14.88090	14.59410	14.65420	14.63180	14.62640	14.60330	14.60070	1.00000
	5.106	15.28190	14.76120	14.92660	14.58750	14.65510	14.63550	14.62980	14.60720	14.60270	1.00000
	GRADIENT	-0.00000	-0.01485	.01727	-0.00061	.00073	-0.00012	-0.00024	-0.00005	.00032	.00000

OA228 B72C15 PR7RMPRBLM PROBES REV. MOD.

(RFLC37) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 37/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.170	15.23340	14.84640	14.69980	14.69730	14.62420	14.63330	14.62850	14.60430	14.59830	1.00000
.248	-2.076	15.24770	14.82980	14.75920	14.70740	14.62630	14.63370	14.62890	14.60510	14.59040	1.00000
.248	-0.025	15.25280	14.80440	14.79250	14.70910	14.62610	14.63370	14.62870	14.60540	14.60020	1.00000
.248	2.033	15.24840	14.77780	14.81160	14.70450	14.62610	14.63250	14.62700	14.60420	14.60080	1.00000
.248	5.115	15.23360	14.74340	14.89190	14.69550	14.62640	14.63230	14.62650	14.60400	14.60130	1.00000
	GRADIENT	.00017	-0.01265	.01275	-0.00071	-0.00005	-0.00029	-0.00046	-0.00022	.00010	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITTER FOREBODY

PAGE 20

OA228 B72C15

(RFLC38) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 38/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	P31	P42	P43	P44	XKB
.248	-5.179	15.26760	14.68030	14.68450	14.45300	14.63500	14.63750	14.63280	14.60870	14.60340	1.00000
.248	-2.089	15.28980	14.70020	14.70600	14.49880	14.65400	14.63530	14.63030	14.60690	14.60150	1.00000
.248	-.039	15.29760	14.70720	14.71690	14.53060	14.64790	14.63450	14.62940	14.60600	14.60190	1.00000
.248	1.984	15.30040	14.71430	14.72890	14.56490	14.65860	14.63490	14.62990	14.60630	14.60180	1.00000
.248	4.025	15.29820	14.71880	14.72760	14.59900	14.65950	14.63320	14.62780	14.60430	14.60030	1.00000
.248	6.067	15.29060	14.71750	14.73130	14.63820	14.66520	14.63640	14.63090	14.60800	14.60200	1.00000
.248	8.120	15.27430	14.71140	14.72840	14.67140	14.65910	14.63400	14.62830	14.60510	14.60010	1.00000
.248	10.167	15.25300	14.70510	14.71480	14.70930	14.65300	14.63400	14.62850	14.60520	14.60020	1.00000
.248	12.238	15.22440	14.69320	14.71210	14.74780	14.64460	14.63370	14.62820	14.60490	14.60020	1.00000
.248	14.259	15.19050	14.67640	14.69370	14.78220	14.64510	14.63180	14.62590	14.60260	14.59870	1.00000
.249	16.342	15.14910	14.65570	14.67430	14.81530	14.62130	14.62820	14.62180	14.59840	14.59610	1.00000
.248	20.431	15.05550	14.61080	14.63350	14.89270	14.58300	14.63210	14.62530	14.60150	14.59820	1.00000
	GRADIENT	.00138	.00309	.00377	.01644	.00133	-.00029	-.00034	-.00037	-.00018	.00000

OA228 B72C15

(RFLC39) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 39/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	P31	P42	P43	P44	XKB
.248	-5.161	15.28160	14.80790	14.62990	14.52520	14.75070	14.63890	14.63390	14.60980	14.60240	1.00000
.248	-2.072	15.29530	14.74650	14.69400	14.53080	14.68820	14.63570	14.63030	14.60690	14.60000	1.00000
.248	-.023	15.29870	14.70880	14.71750	14.53240	14.65050	14.63620	14.63070	14.60760	14.60180	1.00000
.248	2.023	15.29590	14.67020	14.75580	14.53040	14.61750	14.63630	14.63040	14.60790	14.60240	1.00000
.249	5.117	15.28030	14.61090	14.81120	14.51820	14.56730	14.63400	14.62770	14.60550	14.60200	1.00000
	GRADIENT	.00015	-.01864	.01754	-.00010	-.01727	.00015	.00002	.00024	.00059	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 21

(RFLC40) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
MACH = .250

RUN NO. 40/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.249	-5.169	15.28080	14.81760	14.63880	14.59180	14.75390	14.63710	14.63190	14.60840	14.60150	1.00000
.248	-2.072	15.29510	14.76000	14.69620	14.60030	14.69800	14.63720	14.63180	14.60860	14.60200	1.00000
.248	-.015	15.29870	14.72150	14.73240	14.60320	14.66230	14.63750	14.63160	14.60910	14.60220	1.00000
.248	2.026	15.29410	14.68030	14.76920	14.59750	14.62550	14.63450	14.62830	14.60600	14.60140	1.00000
.248	5.110	15.28240	14.62330	14.82840	14.59020	14.57910	14.63610	14.62980	14.60800	14.60230	1.00000
	GRADIENT	-.00024	-.01945	.01781	-.00068	-.01769	-.00066	-.00085	-.00063	-.00015	.00000

OA228 872C15

(RFLC41) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
MACH = .250

RUN NO. 41/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.248	-5.175	15.23260	14.80390	14.62670	14.69930	14.74250	14.63510	14.62920	14.60770	14.59930	1.00000
.248	-2.071	15.24830	14.74480	14.67950	14.70810	14.68790	14.63450	14.62860	14.60730	14.59960	1.00000
.248	-.025	15.25200	14.70480	14.71310	14.70880	14.65220	14.63370	14.62730	14.60660	14.59910	1.00000
.249	2.033	15.24820	14.66310	14.75010	14.70430	14.61560	14.63240	14.62600	14.60550	14.59970	1.00000
.249	5.120	15.23380	14.60220	14.81050	14.69420	14.56400	14.63100	14.62390	14.60420	14.59950	1.00000
	GRADIENT	-.00003	-.01991	.01720	-.00093	-.01762	-.00051	-.00063	-.00044	-.00002	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 22

OA228 B72C15

(RFLC42) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 42/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XK8
.178	-5.064	14.95380	14.65640	14.65910	14.54160	14.63390	14.63420	14.63150	14.62110	14.61730	1.00000
.178	-2.042	14.96450	14.66610	14.66980	14.56530	14.64340	14.63340	14.63080	14.62040	14.61740	1.00000
.178	-.026	14.97020	14.67190	14.67620	14.58170	14.64960	14.63450	14.63200	14.62140	14.61820	1.00000
.178	1.987	14.97010	14.67420	14.68010	14.59910	14.65210	14.63410	14.63140	14.62110	14.61780	1.00000
.179	4.022	14.96820	14.67500	14.67980	14.61560	14.65330	14.63250	14.62980	14.61950	14.61710	1.00000
.178	6.026	14.96520	14.67620	14.68080	14.63430	14.65510	14.63390	14.63120	14.62110	14.61730	1.00000
.178	8.058	14.95600	14.67250	14.67700	14.65130	14.65230	14.63220	14.62960	14.61920	14.61650	1.00000
.178	10.088	14.94840	14.67140	14.67570	14.67260	14.65270	14.63510	14.63240	14.62210	14.61770	1.00000
.178	12.115	14.93250	14.66290	14.67050	14.68920	14.64550	14.63290	14.63000	14.61990	14.61700	1.00000
.178	14.122	14.91460	14.65500	14.66380	14.70630	14.63930	14.63180	14.62890	14.61860	14.61580	1.00000
.178	16.165	14.89400	14.64440	14.65360	14.72370	14.63010	14.63010	14.62710	14.61680	14.61550	1.00000
.178	20.240	14.84550	14.62040	14.62920	14.76130	14.61120	14.62990	14.62650	14.61580	14.61450	1.00000
	GRADIENT	.00054	.00143	.00168	.00833	.00159	-.00015	-.00018	-.00015	-.00006	.00000

OA228 B72C15

(RFLC43) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 43/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XK8
.178	-5.100	14.96070	14.72020	14.63110	14.57800	14.69220	14.63510	14.63270	14.62200	14.61760	1.00000
.178	-2.036	14.96830	14.69100	14.65680	14.58110	14.66590	14.63400	14.63140	14.62080	14.61770	1.00000
.178	-.018	14.96840	14.67040	14.67460	14.58040	14.64820	14.63270	14.63000	14.61970	14.61730	1.00000
.178	2.002	14.96820	14.65260	14.69550	14.58100	14.63270	14.63440	14.63170	14.62140	14.61820	1.00000
.178	5.057	14.95940	14.62100	14.72260	14.57450	14.59930	14.63260	14.62950	14.61960	14.61770	1.00000
	GRADIENT	-.00002	-.00951	.00958	-.00002	-.00822	.00010	.00007	.00015	.00012	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 23

OA228 B72C15

(RFLC44) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 44/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.102	14.96130	14.72550	14.63670	14.61230	14.69790	14.63510	14.63250	14.62180	14.61760	1.00000
.179	-2.047	14.96720	14.69500	14.66160	14.61480	14.67060	14.63320	14.63060	14.62000	14.61730	1.00000
.178	-.019	14.96950	14.67660	14.68120	14.61650	14.65470	14.63400	14.63140	14.62120	14.61760	1.00000
.178	2.005	14.96720	14.65640	14.69920	14.61440	14.63750	14.63310	14.63020	14.62010	14.61750	1.00000
.178	5.045	14.96100	14.62830	14.72950	14.61060	14.61400	14.63390	14.63100	14.62100	14.61850	1.00000
	GRADIENT	.00000	-.00953	.00928	-.00010	-.00817	-.00002	-.00010	.00002	.00005	.00000

OA228 B72C15

(RFLC45) (09 SEP 76)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 45/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	P1	P5	P6	P10	P13	PW1	PW2	PW3	PW4	XKB
.178	-5.104	14.93820	14.71980	14.62990	14.66740	14.69540	14.63530	14.63280	14.62200	14.61750	1.00000
.178	-2.045	14.94430	14.68910	14.65480	14.66920	14.66780	14.63310	14.63040	14.61980	14.61690	1.00000
.178	-.020	14.94680	14.67000	14.67390	14.67150	14.65120	14.63380	14.63100	14.62070	14.61700	1.00000
.179	2.002	14.94430	14.64860	14.69250	14.66780	14.63260	14.63190	14.62890	14.61880	14.61710	1.00000
.178	5.050	14.93800	14.62070	14.72340	14.66560	14.60940	14.63350	14.63030	14.62050	14.61780	1.00000
	GRADIENT	.00000	-.01001	.00932	-.00035	-.00870	-.00030	-.00037	-.00025	.00005	.00000

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 24

(RFLD01) (21 SEP 81)

PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 1/ 0 RN/L = 1.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.178	-5.059	14.69030	-.02100	-.03830	15.01790	.01430	.01390	47.53500	15.02300	535.01000
.178	-2.028	14.69090	-.02110	-.03940	15.01840	.01320	.01390	47.53160	15.02350	535.48700
.178	-.012	14.69130	-.02100	-.03830	15.01890	.01270	.01290	47.54700	15.02400	535.74700
.178	1.996	14.69080	-.01940	-.03670	15.01840	.01480	.01650	47.55030	15.02350	535.83300
.178	4.026	14.69050	-.01960	-.03630	15.01790	.01480	.01710	47.51630	15.02300	535.96300
.178	6.031	14.69080	-.02050	-.03720	15.01840	.01320	.01600	47.50300	15.02350	536.22300
.178	8.060	14.69020	-.02100	-.03770	15.01790	.01270	.01600	47.55360	15.02300	536.44000
.178	10.098	14.69060	-.02190	-.03870	15.01840	.01050	.01290	47.56900	15.02350	536.66000
.178	12.119	14.69000	-.02080	-.03760	15.01790	.01270	.01500	47.59090	15.02300	536.74300
.178	14.153	14.68960	-.02140	-.03820	15.01730	.01270	.01450	47.57560	15.02250	536.82900
.178	16.161	14.68880	-.02120	-.03800	15.01680	.01370	.01600	47.61620	15.02200	536.95900
.178	20.239	14.68800	-.02230	-.04010	15.01680	.01470	.01800	47.72810	15.02200	536.95900
	GRADIENT	-.00008	.00030	.00039	-.00010	.00034	.00065	-.00212	-.00010	.07505

OA228 872C15PR4 PR7 PR8 PROBES STANDARD

(RFLD02) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 2/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.178	-5.067	14.69100	-.01930	-.04240	15.01890	.01420	.01450	47.58430	15.02400	537.60800
.178	-.227	14.69050	-.02080	-.03970	15.01840	.01320	.01340	47.58760	15.02350	537.86700
.178	.000	14.68990	-.02090	-.03770	15.01840	.01530	.01600	47.68080	15.02350	537.86700
.178	2.025	14.69050	-.02050	-.03560	15.01890	.01420	.01550	47.65890	15.02400	538.08300
.178	5.065	14.69120	-.02190	-.03290	15.01890	.01370	.01390	47.56560	15.02400	538.34300
	GRADIENT	.00012	.00016	.00151	.00023	.00005	.00047	.01489	.00023	.10015

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 25

(RFLD03) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 3/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.068	14.69050	-.01980	-.04290	15.01840	.01420	.01550	47.21300	47.58760	15.02350	538.77500
.178	-.229	14.69050	-.02160	-.04060	15.01790	.01370	.01500	47.14290	47.51630	15.02300	538.47300
.178	-.001	14.68950	-.02250	-.03920	15.01890	.01520	.01700	47.43010	47.80810	15.02400	538.86200
.178	2.025	14.69130	-.02310	-.03720	15.01890	.01110	.01290	47.17310	47.54700	15.02400	538.99100
	5.065	14.69080	-.02400	-.03440	15.01940	.01370	.01440	47.31670	47.69280	15.02450	539.12100
	GRADIENT	.00057	-.00052	.00130	.00027	-.00150	-.00136	-.04192	-.04258	.00027	.16429

OA228 872C15PR4 PR7 PR8 PROBES STANDARD

(RFLD04) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 4/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.071	14.69040	-.02180	-.04490	15.01840	.01210	.01500	47.23140	47.60620	15.02350	539.38000
.178	-.231	14.68980	-.02120	-.04070	15.01780	.01320	.01600	47.23470	47.60960	15.02300	539.38000
.178	-.002	14.69020	-.02040	-.03770	15.01790	.01160	.01500	47.17960	47.55360	15.02300	539.55300
.178	2.024	14.68890	-.02310	-.03770	15.01730	.01530	.01860	47.29300	47.66890	15.02250	539.42300
.178	5.065	14.68930	-.02370	-.03420	15.01830	.01470	.01750	47.37820	47.75540	15.02350	539.68200
	GRADIENT	-.00049	-.00104	.00081	-.00025	.00128	.00140	.03772	.03835	-.00023	-.01373

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 26

(REFD05) (21 SEP 81)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 5/ 0 RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.146	14.69470	-.02080	-.04070	15.33760	.01430	.01550	94.00880	15.35310	541.66700
.248	-2.105	14.69540	-.02340	-.04250	15.33760	.01290	.01530	93.91350	15.35300	543.39100
.248	-.071	14.69400	-.02140	-.03990	15.33610	.01480	.01710	93.88580	15.35150	544.25300
.248	1.970	14.69590	-.02290	-.04230	15.33810	.01290	.01550	93.91010	15.35360	544.42500
.248	4.026	14.69570	-.02150	-.04000	15.33810	.01290	.01550	93.94820	15.35360	545.45800
.248	6.068	14.69440	-.01950	-.03820	15.33660	.01400	.01650	93.90140	15.35200	545.80200
.248	8.126	14.69500	-.02160	-.04010	15.33710	.01320	.01580	93.89790	15.35250	546.06100
.248	10.188	14.69330	-.02300	-.04180	15.33610	.01240	.01470	93.97750	15.35200	547.00700
.248	12.233	14.69390	-.02410	-.04260	15.33660	.01260	.01500	93.96540	15.35100	546.62000
.248	14.279	14.69300	-.02360	-.04240	15.33560	.01370	.01610	94.04490	15.35050	547.13600
.248	16.348	14.69190	-.02310	-.04220	15.33500	.01100	.01320	93.75590	15.35100	547.65200
.248	20.431	14.69440	-.02270	-.04210	15.33560	.01100	.01320	93.75590	15.35100	547.65200
GRADIENT		.00014	.00021	.00025	.00017	-.00009	-.00005	.00630	.00019	.31191

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(REFD06) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 6/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.132	14.69580	-.01950	-.04500	15.33860	.01510	.01660	94.00190	15.35410	549.37200
.248	-.250	14.69630	-.01990	-.04140	15.33720	.01300	.01480	93.70750	15.35250	549.28600
.248	.000	14.69400	-.02290	-.04170	15.33660	.01400	.01630	93.90140	15.35200	549.80200
.248	2.050	14.69540	-.02260	-.03930	15.33760	.01400	.01630	93.91350	15.35300	550.01700
.248	5.130	14.69660	-.02410	-.03670	15.33920	.01430	.01550	93.96040	15.35460	550.10300
GRADIENT		-.00005	-.00066	.00101	.00030	.00027	.00040	.05728	.00032	.23566

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 27

(RFLD07) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 7/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.135	14.69780	-.01800	-.04320	15.33970	.01320	.01500	92.43320	93.86170	15.35510	550.31800
.248	-.253	14.69640	-.02070	-.04190	15.33820	.01290	.01530	92.40610	93.83390	15.35360	551.04800
.248	.000	14.69430	-.02060	-.03930	15.33710	.01510	.01710	92.56040	93.99310	15.35250	550.66200
.248	2.050	14.69530	-.02150	-.03790	15.33760	.01400	.01660	92.50170	93.93260	15.35300	551.00500
.248	5.131	14.69660	-.02530	-.03790	15.33970	.01340	.01610	92.59930	94.03310	15.35510	550.79100
	GRADIENT	-.00011	-.00038	.00133	-.00007	.00009	.00025	.01451	.01499	-.00007	.05292

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLD08) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 8/ 0 RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.143	14.69510	-.01990	-.04540	15.33760	.01370	.01630	92.52020	93.95160	15.35310	551.90800
.248	-.264	14.69340	-.02250	-.04370	15.33610	.01400	.01710	92.54850	93.98100	15.35150	552.12300
.248	.004	14.69560	-.02380	-.04290	15.33760	.01100	.01400	92.44640	93.87550	15.35300	552.38000
.248	2.050	14.69460	-.02350	-.03990	15.33660	.01290	.01660	92.45290	93.88230	15.35200	552.38000
.248	5.133	14.69570	-.02420	-.03680	15.33860	.01290	.01610	92.58750	94.02090	15.35410	552.89600
	GRADIENT	.00013	-.00021	.00157	-.00005	.00006	.00035	-.02430	-.02507	-.00005	.06857

(RFLD09) (21 SEP 81)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 9/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.168	14.69620	-.02180	-.04160	15.33870	.01430	.01500	92.51360	93.94480	15.35410	552.81000
.248	-2.084	14.69550	-.02140	-.04050	15.33810	.01430	.01610	92.53540	93.96720	15.35360	553.26200
.248	-.040	14.69590	-.02110	-.04020	15.33860	.01430	.01580	92.55050	93.98280	15.35410	553.84100
.248	1.985	14.69700	-.02280	-.04180	15.33970	.01290	.01580	92.54400	93.97600	15.35510	553.84100
.248	4.032	14.69530	-.02320	-.04200	15.33810	.01400	.01740	92.57230	94.00530	15.35360	553.92700
.248	6.108	14.69870	-.02080	-.03980	15.34020	.01210	.01420	92.37460	93.80120	15.35560	553.97000
.248	8.129	14.69690	-.01990	-.03860	15.33870	.01270	.01560	92.42130	93.84950	15.35410	554.35700
.248	10.190	14.69670	-.02230	-.04110	15.33920	.01130	.01450	92.51030	93.94130	15.35460	553.71200
.248	12.218	14.69620	-.02220	-.04100	15.33820	.01210	.01480	92.44300	93.87200	15.35360	554.35700
.248	14.291	14.69430	-.02200	-.04110	15.33760	.01320	.01610	92.63090	94.06590	15.35310	554.22800
.248	16.337	14.69300	-.02310	-.04220	15.33610	.01370	.01680	92.60380	94.03810	15.35150	554.44300
.248	20.448	14.69410	-.02330	-.04260	15.33760	.01240	.01500	92.66790	94.10400	15.35310	553.71200
	GRADIENT	.00002	-.00035	-.00030	.00005	-.00011	.00019	.00512	.00528	.00005	.09504

(RFLD10) (21 SEP 81)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 10/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.156	14.69840	-.02260	-.04200	15.33920	.01380	.01530	92.27040	93.69380	15.35460	547.09300
.248	-2.091	14.69740	-.02250	-.04160	15.33920	.01400	.01580	92.41800	93.84610	15.35460	547.69500
.248	-.043	14.69620	-.02320	-.04170	15.33920	.01510	.01690	92.58420	94.01750	15.35460	548.34000
.248	1.970	14.69790	-.02360	-.04240	15.33970	.01180	.01480	92.41480	93.84270	15.35510	548.89900
.248	4.022	14.69670	-.02160	-.03980	15.33820	.01400	.01610	92.36920	93.79580	15.35360	549.24300
.248	8.141	14.69640	-.02460	-.04320	15.33770	.01270	.01610	92.33560	93.76120	15.35300	549.67300
.248	10.195	14.69690	-.02200	-.04020	15.33870	.01210	.01580	92.42130	93.84950	15.35410	550.06000
.248	12.233	14.69590	-.02320	-.04170	15.33810	.01240	.01530	92.48000	93.91010	15.35360	550.61900
.248	14.290	14.69510	-.02370	-.04250	15.33660	.01270	.01610	92.37910	93.80610	15.35200	550.36100
.248	16.346	14.69480	-.02270	-.04150	15.33610	.01320	.01530	92.34540	93.77150	15.35150	551.17700
.248	20.444	14.69440	-.02060	-.03990	15.33560	.01380	.01660	92.33030	93.75590	15.35100	550.87600
	GRADIENT	-.00002	.00011	.00023	-.00012	-.00016	-.00006	-.01545	-.01593	-.00012	.25561

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 29

(RFLD11) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 11/ 0 RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.133	14.69690	-.02190	-.04750	15.33970	.01480	.01610	93.99500	15.35510	549.88800
.248	-2.050	14.69780	-.02200	-.04330	15.33870	.01380	.01530	93.71630	15.35410	551.00500
.248	.002	14.69780	-.02270	-.04120	15.33920	.01350	.01530	93.78900	15.35460	552.12300
.248	2.025	14.69900	-.02350	-.03990	15.34020	.01350	.01530	93.76310	15.35560	552.42300
.248	5.079	14.69940	-.02210	-.03460	15.34170	.01480	.01690	93.92420	15.35720	552.89600
	GRADIENT	.00029	-.00037	.00083	.00037	-.00007	.00000	.01154	.00037	.34839

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLD12) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0
 LREF = 474.8100 IN. YMRP = .0000 IN. Y0
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. Z0
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 12/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.136	14.69820	-.02130	-.04660	15.34120	.01340	.01500	94.02280	15.35670	552.89600
.248	-2.028	14.69590	-.02140	-.04260	15.33860	.01510	.01740	93.98280	15.35410	553.97000
.248	-.024	14.69760	-.02060	-.03920	15.33870	.01380	.01660	93.73530	15.35410	553.66900
.248	2.026	14.69740	-.02500	-.04120	15.33970	.01370	.01610	93.91880	15.35510	554.35700
.248	5.058	14.70090	-.02560	-.03770	15.34130	.01190	.01400	93.64200	15.35660	554.70000
	GRADIENT	.00037	-.00089	.00034	.00027	-.00034	-.00032	-.01538	.00025	.09638

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 30

(RFLD13) (21 SEP 81)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

PARAMETRIC DATA

RUN NO. 13/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.141	14.69780	-.02040	-.04540	15.33970	.01480	.01710	92.43320	93.86170	15.35510	555.86000
.248	-2.062	14.70010	-.02270	-.04320	15.34120	.01130	.01450	92.33110	93.75620	15.35660	555.73100
.248	-.026	14.69860	-.02310	-.04170	15.34020	.01240	.01610	92.39300	93.82020	15.35560	555.43100
.248	2.028	14.69860	-.02380	-.04000	15.34120	.01290	.01580	92.53410	93.96570	15.35660	555.81700
.248	5.085	14.69830	-.02410	-.03640	15.34020	.01460	.01770	92.42990	93.85830	15.35560	556.03200
	GRADIENT	-.00037	-.00027	.00078	.00000	.00039	.00032	.04966	.05125	.00000	.02128

(RFLD14) (21 SEP 81)

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = .000 RN/L = 1.270
 MACH = .180

PARAMETRIC DATA

RUN NO. 14/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.065	14.69330	-.01760	-.04020	15.02040	.01320	.01400	47.10820	47.48100	15.02550	554.01300
.178	-2.025	14.69140	-.01920	-.03860	15.01940	.01690	.01860	47.22490	47.59960	15.02450	554.18500
.178	-.025	14.69180	-.02170	-.03800	15.01990	.01580	.01750	47.24000	47.61490	15.02500	553.88400
.178	2.001	14.69340	-.02000	-.03410	15.02090	.01320	.01450	47.16000	47.53360	15.02600	553.36800
.178	5.016	14.69260	-.02350	-.03390	15.02040	.01640	.01600	47.20000	47.57430	15.02550	554.09900
	GRADIENT	.00050	-.00020	.00112	.00037	-.00092	-.00102	-.01617	-.01644	.00037	-.20302

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 31

(RFLD15) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 15/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.067	14.69300	-.01800	-.04110	15.02040	.01320	.01500	47.14490	47.51830	15.02550	553.66900
.178	-2.026	14.69140	-.01970	-.03910	15.01940	.01640	.01860	47.22490	47.59960	15.02450	553.92700
.178	-.024	14.69300	-.02320	-.04000	15.02040	.01270	.01450	47.14490	47.51830	15.02550	553.88400
.178	2.001	14.69210	-.02060	-.03470	15.01940	.01590	.01760	47.13310	47.50630	15.02450	553.58300
.178	5.015	14.69300	-.02370	-.03360	15.02040	.01370	.01550	47.14490	47.51830	15.02550	553.92700
	GRADIENT	.00017	-.00022	.00110	-.00000	-.00012	-.00024	-.02276	-.02314	-.00000	-.08554

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLD16) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 16/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.070	14.69280	-.01870	-.04130	15.01990	.01270	.01500	47.11150	47.48440	15.02500	553.49700
.178	-2.031	14.69150	-.01940	-.03830	15.01840	.01590	.01860	47.06620	47.43840	15.02350	553.71200
.177	.000	14.69250	-.01700	-.03370	15.01890	.01270	.01560	47.00790	47.37910	15.02400	553.02500
.178	2.001	14.69090	-.02100	-.03500	15.01940	.01740	.01960	47.29830	47.67420	15.02450	553.49700
.178	5.016	14.69220	-.02200	-.03290	15.01990	.01430	.01710	47.18490	47.55900	15.02500	553.28200
	GRADIENT	-.00015	-.00039	.00082	.00025	.00037	.00024	.05734	.05826	.00025	-.05404

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 32

(REFD17) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 17/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.095	14.69250	-.02130	-.03860	15.02040	.01580	.01600	47.21840	47.59290	15.02550	549.37200
.178	-2.080	14.69210	-.02160	-.03840	15.02040	.01740	.01860	47.27340	47.64890	15.02550	549.58700
.178	-.061	14.69280	-.02010	-.03690	15.02090	.01420	.01550	47.25180	47.62690	15.02610	549.80200
.178	1.961	14.69240	-.02090	-.03770	15.02090	.01530	.01700	47.30690	47.68280	15.02610	549.71600
.178	3.981	14.69240	-.02120	-.03750	15.02040	.01530	.01700	47.23670	47.61160	15.02550	549.88800
.178	6.017	14.69160	-.02100	-.03720	15.02090	.01630	.01900	47.41700	47.79480	15.02610	549.58700
.178	8.039	14.69270	-.02260	-.03890	15.02090	.01260	.01550	47.27020	47.64550	15.02610	550.10300
.178	10.049	14.69290	-.02100	-.03730	15.02040	.01160	.01390	47.16330	47.53700	15.02550	550.23300
.178	12.105	14.69220	-.02070	-.03700	15.01940	.01270	.01500	47.11470	47.48770	15.02450	550.27500
.178	14.123	14.69060	-.02220	-.03840	15.01890	.01530	.01750	47.26480	47.64020	15.02400	550.06000
.178	16.131	14.69140	-.02280	-.03960	15.01940	.01270	.01500	47.22490	47.59960	15.02450	550.49000
.178	20.205	14.69110	-.01910	-.03590	15.01840	.01430	.01660	47.12130	47.49430	15.02350	550.36100
	GRADIENT	.00002	.00002	.00009	.00000	-.00026	-.00016	-.00272	-.00277	.00000	.04043

OA228 B72C15 PR7 PR8 PROBES STANDARD

(REFD18) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 18/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.090	14.69290	-.01840	-.04150	15.02040	.01370	.01450	47.16330	47.53700	15.02550	550.23200
.178	-2.051	14.69240	-.02020	-.03960	15.02040	.01420	.01550	47.23670	47.61160	15.02550	550.36100
.178	-.023	14.69230	-.02120	-.03740	15.02040	.01530	.01700	47.25510	47.63020	15.02550	550.57600
.178	1.976	14.69320	-.02070	-.03480	15.02040	.01370	.01500	47.12660	47.49970	15.02550	550.79100
.178	5.040	14.69250	-.02290	-.03330	15.02040	.01530	.01550	47.21840	47.59290	15.02550	550.66200
	GRADIENT	.00020	-.00013	.00119	-.00000	-.00012	-.00012	-.02726	-.02770	-.00000	.10678

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 33

(RFLD19) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 19/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.092	14.69360	-.01830	-.04090	15.02040	.01220	.01350	47.07150	47.44370	15.02550	551.04800
.178	-2.026	14.69120	-.01980	-.03920	15.01990	.01840	.01960	47.33180	47.70820	15.02500	551.00500
.178	-.024	14.69280	-.02060	-.03690	15.02090	.01370	.01600	47.25180	47.62690	15.02610	550.70500
.178	1.976	14.69290	-.02210	-.03620	15.02040	.01370	.01500	47.16330	47.53700	15.02550	551.13400
.178	5.065	14.69170	-.02270	-.03310	15.01990	.01630	.01810	47.25830	47.63360	15.02500	550.91900
	GRADIENT	.00042	-.00057	.00075	.00013	-.00117	-.00115	-.04211	-.04279	.00013	.03221

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLD20) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 20/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.095	14.69180	-.01940	-.04260	15.01940	.01430	.01650	47.16980	47.54370	15.02450	551.17700
.178	-2.080	14.69190	-.01880	-.03710	15.02040	.01370	.01650	47.31020	47.68620	15.02560	551.34900
.178	-.026	14.69260	-.02010	-.03690	15.01990	.01210	.01500	47.12980	47.50300	15.02500	551.17700
.178	1.976	14.69100	-.02190	-.03500	15.01890	.01640	.01910	47.20980	47.58430	15.02400	551.09100
.178	5.040	14.69240	-.02310	-.03410	15.01990	.01320	.01550	47.16650	47.54030	15.02500	551.34900
	GRADIENT	-.00022	-.00076	.00027	-.00037	.00066	.00063	-.02503	-.02540	-.00039	-.06370

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 34

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLD21) (21 SEP 81)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 21/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.248	-5.201	14.70050	-.02320	-.04250	15.34280	.01480	.01610	92.48740	93.91730	15.35820	553.66900
.248	-2.137	14.70210	-.02160	-.04020	15.34330	.01320	.01530	92.33640	93.76150	15.35870	553.97000
.248	-.096	14.69880	-.02350	-.04200	15.34170	.01560	.01840	92.58620	94.01930	15.35720	554.44300
.248	1.954	14.70010	-.02430	-.04290	15.34280	.01450	.01770	92.54280	93.97440	15.35820	555.13000
.248	3.993	14.70050	-.02340	-.04170	15.34280	.01400	.01690	92.48740	93.91730	15.35820	554.95800
.248	6.056	14.69860	-.02390	-.04250	15.34270	.01450	.01760	92.61660	94.05060	15.35820	555.17300
.248	8.097	14.70140	-.02390	-.04250	15.34380	.01130	.01450	92.49930	93.92950	15.35920	555.56000
.248	10.157	14.69940	-.02240	-.04100	15.34220	.01340	.01610	92.56450	93.99690	15.35770	555.94600
.248	12.203	14.69990	-.02300	-.04130	15.34170	.01180	.01420	92.42010	93.84800	15.35710	556.41900
.248	14.237	14.69830	-.02290	-.04140	15.34070	.01240	.01550	92.50050	93.93100	15.35610	556.46200
.248	20.402	14.69740	-.02360	-.04270	15.33920	.01320	.01580	92.41800	93.84610	15.35460	556.54800
	GRADIENT	-.00017	-.00030	-.00026	-.00002	.00006	.00020	.02004	.02067	-.00002	.17871

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLD22) (21 SEP 81)

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 22/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.248	-5.181	14.70140	-.02050	-.04550	15.34380	.01400	.01500	92.49930	93.92950	15.35920	558.09500
.248	-2.076	14.70130	-.02170	-.04290	15.34330	.01350	.01500	92.44720	93.87580	15.35870	558.61100
.248	-.024	14.70140	-.02200	-.04050	15.34330	.01270	.01560	92.42870	93.85670	15.35870	558.52500
.248	2.001	14.70060	-.02400	-.04010	15.34280	.01400	.01610	92.46890	93.89820	15.35820	558.48200
.248	5.105	14.70270	-.02280	-.03510	15.34380	.01320	.01450	92.31470	93.73910	15.35920	558.99800
	GRADIENT	-.00017	-.00056	.00069	-.00012	.00012	.00027	.00529	.00546	-.00012	-.03167

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 35

(RFLD23) (21 SEP 81)

OA228 B72C15 PR7 PR8 PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 23/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.248	-5.185	14.70140	-.02210	-.04720	15.34280	.01350	.01530	92.35820	93.78400	15.35820	559.68600
.248	-2.102	14.70050	-.02270	-.04340	15.34330	.01370	.01660	92.55790	93.99000	15.35870	559.47000
.248	..024	14.70040	-.02280	-.04140	15.34280	.01400	.01710	92.50580	93.93630	15.35820	559.85700
.248	2.002	14.70010	-.02430	-.04050	15.34280	.01450	.01770	92.54280	93.97440	15.35820	560.07200
.248	5.106	14.70250	-.02680	-.03910	15.34430	.01180	.01450	92.42210	93.84980	15.35970	560.28700
	GRADIENT	-.00010	-.00039	.00071	-.00012	.00019	.00027	-.00377	-.00390	-.00012	.14685

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLD24) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 24/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.191	14.70250	-.02020	-.04520	15.34330	.01210	.01400	92.28100	93.70440	15.35870	561.01900
.248	-2.083	14.69980	-.02320	-.04420	15.34270	.01340	.01630	92.57970	94.01250	15.35820	561.23400
.248	..025	14.70100	-.02170	-.04030	15.34280	.01180	.01500	92.41350	93.84110	15.35820	560.89000
.248	2.003	14.69950	-.02150	-.03760	15.34120	.01430	.01710	92.40490	93.83240	15.35660	561.01900
.248	5.084	14.70060	-.02400	-.03630	15.34280	.01270	.01580	92.46890	93.89820	15.35820	561.10500
	GRADIENT	-.00007	.00042	.00162	-.00037	.00022	.00019	-.04287	-.04417	-.00039	-.05290

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 36

(RFLD25) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 25/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.185	14.66200	-.02140	-.04040	15.30400	.01370	.01480	93.87960	15.31940	551.09100
.248	-2.108	14.66120	-.02260	-.04120	15.30350	.01450	.01630	93.92110	15.31890	552.20800
.248	-.075	14.65990	-.02450	-.04280	15.30290	.01530	.01820	94.03880	15.31840	552.33700
.248	1.956	14.66160	-.01980	-.03830	15.30350	.01510	.01770	93.86390	15.31890	552.81000
.248	4.007	14.65990	-.02200	-.04020	15.30300	.01530	.01820	93.96600	15.31790	552.72400
.248	6.058	14.66120	-.02200	-.04020	15.30300	.01430	.01690	93.84830	15.31840	553.23900
.248	8.129	14.66230	-.02250	-.04050	15.30400	.01210	.01560	93.84150	15.31940	554.01300
.248	10.182	14.66120	-.02450	-.04280	15.30350	.01160	.01500	93.92110	15.31890	553.08400
.248	12.213	14.66030	-.02370	-.04200	15.30240	.01210	.01480	93.90890	15.31790	554.01300
.248	14.259	14.65960	-.02220	-.04050	15.30140	.01270	.01530	93.85860	15.31680	554.57200
.248	16.298	14.65800	-.02160	-.04010	15.29940	.01430	.01720	93.79620	15.31480	554.57200
.248	20.424	14.65940	-.02430	-.04290	15.29990	.01190	.01430	93.65950	15.31530	554.35700
GRADIENT		-.00011	.00032	.00037	-.00013	.00011	.00026	-.00195	-.00012	.09909

(RFLD26) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 26/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.156	14.66090	-.02140	-.04610	15.30300	.01450	.01580	93.88640	15.31840	556.63400
.248	-2.049	14.66190	-.02150	-.04220	15.30350	.01350	.01500	93.82590	15.31890	556.89200
.248	.001	14.66080	-.02310	-.04140	15.30250	.01400	.01640	93.83270	15.31790	557.10600
.248	2.026	14.66040	-.02550	-.04140	15.30340	.01450	.01690	94.03540	15.31880	557.23500
.248	5.131	14.66130	-.02530	-.03740	15.30350	.01430	.01610	93.90200	15.31890	557.10600
GRADIENT		-.00037	-.00098	.00020	-.00003	.00025	.00047	.05131	-.00000	.08421

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 37

(RFLD27) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 27/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.158	14.66300	-.01990	-.04440	15.30400	.01270	.01500	93.72720	15.31940	558.26700
.248	-2.052	14.66070	-.02100	-.04170	15.30300	.01430	.01690	93.92450	15.31840	558.56800
.248	.002	14.66080	-.02320	-.04150	15.30300	.01480	.01790	93.90550	15.31840	559.16900
.248	2.027	14.66390	-.02130	-.03680	15.30600	.01290	.01530	93.90390	15.32150	558.95500
.248	5.130	14.66270	-.02420	-.03600	15.30500	.01260	.01610	93.92980	15.32040	559.34200
	GRADIENT	.00078	-.00008	.00120	.00073	-.00034	-.00039	-.00506	.00076	.09534

OA228 B72C15 PR7R PR8L PROBES REVERSED

(RFLD28) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 28/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.248	-5.166	14.66200	-.02060	-.04560	15.30400	.01240	.01500	93.87960	15.31940	560.37400
.248	-2.087	14.66050	-.02320	-.04360	15.30200	.01290	.01560	93.79810	15.31730	560.54500
.248	-.027	14.66130	-.02350	-.04170	15.30350	.01210	.01560	93.90200	15.31890	560.11500
.249	2.028	14.65980	-.02370	-.03980	15.30340	.01370	.01740	94.13050	15.31890	560.63200
.248	5.133	14.66110	-.02500	-.03700	15.30350	.01320	.01580	93.94010	15.31890	560.28700
	GRADIENT	-.00017	-.00012	.00092	.00034	.00019	.00044	.08076	.00039	.02104

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 38

(RFLD29) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 29/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.178	-5.073	14.65390	-.02100	-.03780	14.98060	.01530	.01550	47.42940	14.98570	558.56800
.178	-2.069	14.65340	-.02110	-.03780	14.98160	.01630	.01750	47.64650	14.98680	558.35300
.178	-.036	14.65490	-.02000	-.03620	14.98170	.01220	.01400	47.42270	14.98670	558.13800
.178	1.977	14.65330	-.02240	-.03920	14.98110	.01530	.01760	47.57530	14.98620	558.43900
.178	3.998	14.65470	-.02340	-.03980	14.98170	.01270	.01450	47.46000	14.98670	558.61100
.178	6.017	14.65260	-.02090	-.03710	14.98110	.01690	.02010	47.68720	14.98630	558.35300
.178	8.049	14.65530	-.01860	-.03480	14.98170	.01110	.01350	47.36680	14.98670	557.88000
.178	10.068	14.65440	-.01990	-.03620	14.98110	.01220	.01450	47.42610	14.98620	558.26700
.178	12.091	14.65350	-.02080	-.03650	14.98060	.01220	.01450	47.46670	14.98570	558.26700
.178	14.123	14.65280	-.02170	-.03790	14.98010	.01370	.01600	47.50730	14.98520	558.56800
.178	16.140	14.65290	-.01920	-.03590	14.98010	.01370	.01550	47.48870	14.98520	558.26700
.178	20.207	14.64990	-.01800	-.03520	14.97800	.02220	.02270	47.63260	14.98320	558.52500
GRADIENT		.00011	-.00046	-.00044	-.00001	-.00038	-.00027	-.02019	-.00004	.05308

OA228 B72C15 PR7R PRBL PROBES REVERSED

(RFLD30) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 30/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	QC	PT27	TT
.178	-5.090	14.65390	-.01940	-.04200	14.98060	.01530	.01550	47.42940	14.98570	557.57900
.178	-2.050	14.65410	-.01980	-.03870	14.98110	.01430	.01500	47.46340	14.98620	557.49300
.178	-.023	14.65420	-.02130	-.03750	14.98220	.01420	.01550	47.60590	14.98730	558.05200
.178	2.001	14.65430	-.01990	-.03340	14.98110	.01430	.01550	47.44470	14.98620	557.88000
.178	5.065	14.65380	-.01980	-.03010	14.98160	.01690	.01760	47.59060	14.98680	557.79400
GRADIENT		.00005	-.00002	.00131	.00000	-.00000	.00012	-.00459	.00000	.09559

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 39

(RFLD31) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 31/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.178	-5.092	14.65470	-.01850	-.04100	14.98220	.01370	.01450	47.15670	47.53130	14.98730	557.53600
.178	-2.026	14.65330	-.02350	-.04240	14.98110	.01640	.01810	47.20000	47.57530	14.98620	557.66500
.178	.001	14.65560	-.01950	-.03580	14.98220	.01110	.01350	47.02830	47.40080	14.98730	558.05200
.178	2.001	14.65540	-.01870	-.03220	14.98170	.01220	.01500	46.97650	47.34810	14.98670	557.92300
.178	5.064	14.65600	-.02080	-.03070	14.98220	.01110	.01300	46.97320	47.34480	14.98730	557.88000
	GRADIENT	.00052	.00119	.00253	.00015	-.00105	-.00077	-.05557	-.05649	.00013	.06435

OA228 B72C15 PR7R PR8L PROBES REVERSED

(RFLD32) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 32/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.178	-5.094	14.65560	-.01850	-.04110	14.98220	.00950	.01140	47.02830	47.40080	14.98730	556.07500
.178	-2.028	14.65350	-.02060	-.03950	14.98160	.01530	.01810	47.25180	47.62790	14.98680	556.03200
.178	.000	14.65350	-.02120	-.03690	14.98160	.01370	.01650	47.25180	47.62790	14.98680	556.03200
.178	2.001	14.65350	-.02230	-.03590	14.98060	.01530	.01760	47.11150	47.48540	14.98570	555.73100
.178	5.066	14.65380	-.02240	-.03220	14.98160	.01480	.01760	47.21510	47.59060	14.98680	555.64500
	GRADIENT	.00000	-.00042	.00089	-.00025	-.00000	-.00013	-.03474	-.03528	-.00027	-.07452

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 40

(RFLD33) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
MACH = .250

RUN NO. 33/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.183	14.66340	-.02200	-.04120	15.30190	.01440	.01510	91.94040	93.35710	15.31720	555.90300
.248	-2.125	14.66450	-.02360	-.04200	15.30380	.01350	.01540	92.05780	93.47800	15.31910	556.84900
.247	-.076	14.66360	-.02430	-.04220	15.30160	.01410	.01670	91.87960	93.29440	15.31690	557.32100
.247	1.978	14.66510	-.02130	-.03930	15.30270	.01330	.01620	91.81030	93.22280	15.31790	556.93500
.247	4.009	14.66440	-.02320	-.04070	15.30260	.01350	.01640	91.90630	93.32180	15.31790	557.45000
.248	6.063	14.66170	-.02690	-.04480	15.30160	.01460	.01770	92.14170	93.56470	15.31690	558.31000
.247	8.092	14.66480	-.02320	-.04110	15.30290	.01140	.01430	91.88280	93.29760	15.31810	558.31000
.247	10.164	14.66410	-.02370	-.04130	15.30230	.01140	.01460	91.90450	93.32000	15.31760	558.65400
.248	12.226	14.66260	-.02390	-.04170	15.30110	.01270	.01560	91.94940	93.36840	15.31640	558.99800
.248	14.247	14.66060	-.02480	-.04320	15.29960	.01380	.01640	92.02130	93.44070	15.31490	559.34200
.248	16.301	14.65980	-.02510	-.04350	15.29860	.01460	.01670	91.99090	93.40950	15.31390	559.55600
.248	20.418	14.66170	-.02670	-.04540	15.30070	.01220	.01300	92.01840	93.43760	15.31600	559.85700
GRADIENT	.00006	.00033	.00021	.00033	-.00012	-.00004	.00012	-.02567	-.02648	-.00013	.06915

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 41

(RFLD34) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 34/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.249	-5.156	14.64710	-.02180	-.04030	15.29030	.01560	.01630	92.61050	94.04930	15.30570	555.38800
.248	-2.101	14.65020	-.02250	-.04070	15.29280	.01240	.01450	92.54240	93.97880	15.30830	556.20400
.248	-.054	14.64970	-.02100	-.03900	15.29120	.01240	.01480	92.37190	93.80320	15.30660	556.76300
.249	1.979	14.64950	-.02270	-.04040	15.29230	.01320	.01550	92.56040	93.99750	15.30780	557.66500
.249	4.043	14.64670	-.01990	-.03750	15.29010	.01640	.01900	92.65170	94.09190	15.30560	557.93300
.248	6.075	14.64890	-.02540	-.04300	15.29150	.01210	.01470	92.52870	93.96490	15.30690	558.65400
.248	8.119	14.64940	-.02430	-.04200	15.29150	.01160	.01420	92.46970	93.90400	15.30690	557.75100
.248	10.160	14.64900	-.02370	-.04170	15.29050	.01160	.01400	92.38020	93.81180	15.30590	558.32400
.249	12.227	14.64740	-.02210	-.04000	15.28980	.01240	.01480	92.50300	93.93850	15.30520	558.95500
.249	14.286	14.64560	-.02320	-.04120	15.28850	.01370	.01580	92.58100	94.01910	15.30400	559.38500
.249	16.321	14.64400	-.02380	-.04230	15.28760	.01480	.01710	92.67920	94.12050	15.30300	559.08300
.248	20.451	14.64620	-.02440	-.04270	15.28870	.01210	.01370	92.52800	93.96440	15.30420	559.81400
	GRADIENT	-.00052	.00030	.00040	-.00034	.00063	.00069	.02523	.02607	-.00034	.23273

OA228 B72C15 PR7RMPRBLM PROBES REV. MOD.

(RFLD35) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 35/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.182	14.64830	-.02140	-.04620	15.29100	.01350	.01420	92.55050	93.98740	15.30640	560.41600
.249	-2.097	14.64640	-.02390	-.04430	15.28970	.01480	.01610	92.63590	94.07560	15.30520	561.66400
.249	-.033	14.64670	-.02200	-.03990	15.29010	.01530	.01710	92.65540	94.09570	15.30560	561.19100
.249	2.015	14.64710	-.02120	-.03670	15.29050	.01530	.01760	92.64980	94.08990	15.30590	561.79300
.249	5.112	14.64920	-.02410	-.03580	15.29270	.01400	.01530	92.66490	94.10520	15.30820	561.87900
	GRADIENT	.00017	.00066	.00185	.00019	.00012	.00036	.00339	.00349	.00017	.03102

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 42

(RFLD36) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 36/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.248	-5.179	14.64930	-.02300	-.04750	15.29140	.01270	.01400	92.45920	93.89320	15.30680	562.22300
.249	-2.084	14.64570	-.02330	-.04340	15.28910	.01450	.01740	92.65830	94.09880	15.30460	562.61100
.249	-.042	14.64690	-.02440	-.04190	15.29010	.01430	.01680	92.62590	94.06520	15.30560	563.51500
.249	2.011	14.64590	-.02340	-.03870	15.28970	.01590	.01810	92.70600	94.14800	15.30520	562.26600
.248	5.106	14.65000	-.02360	-.03510	15.29230	.01260	.01480	92.50130	93.93650	15.30770	563.68700
	GRADIENT	.00005	-.00002	.00115	.00015	.00034	.00017	.01167	.01204	.00015	-.08472

OA228 B72C15 PR7RMPR8LM PROBES REV. MOD.

(RFLD37) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 37/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	OC	PT27	TT
.248	-5.170	14.64640	-.02260	-.04740	15.28870	.01350	.01610	92.49480	93.93010	15.30420	563.90200
.248	-2.076	14.64660	-.02040	-.04130	15.28830	.01370	.01690	92.41250	93.84530	15.30370	564.24700
.248	-.025	14.64810	-.02360	-.04180	15.29000	.01160	.01500	92.43150	93.86480	15.30540	563.94500
.248	2.033	14.64650	-.02330	-.03910	15.28830	.01370	.01690	92.41990	93.85290	15.30370	564.37600
.248	5.115	14.64730	-.02340	-.03520	15.28960	.01400	.01660	92.48210	93.91700	15.30500	564.37600
	GRADIENT	-.00002	-.00071	.00054	-.00000	.00000	.00000	.00180	.00184	-.00000	.03150

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 43

(RFLD38) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 38/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.179	14.64950	-.02080	-.03960	15.29150	.01350	.01450	92.45490	93.88870	15.30690	558.43900
.248	-2.089	14.64840	-.02240	-.04060	15.28990	.01290	.01580	92.37310	93.80450	15.30530	560.41600
.248	-.039	14.64710	-.02220	-.04050	15.28880	.01430	.01690	92.53620	93.97280	15.30520	560.89000
.249	1.984	14.64760	-.02250	-.04080	15.29020	.01400	.01690	92.52620	93.96240	15.30560	561.10500
.248	4.025	14.64760	-.02380	-.04150	15.29180	.01400	.01710	92.52620	94.20660	15.30730	561.10500
.248	6.067	14.64990	-.02300	-.04050	15.29110	.01160	.01500	92.33570	93.76580	15.30650	561.53500
.248	8.120	14.64790	-.02420	-.04190	15.29030	.01240	.01580	92.50340	93.93890	15.30570	561.40600
.248	10.167	14.64750	-.02300	-.04100	15.29030	.01210	.01500	92.55880	93.99600	15.30570	562.09400
.248	12.238	14.64740	-.02200	-.04050	15.28930	.01240	.01450	92.43240	93.86570	15.30470	561.92200
.248	14.259	14.64550	-.02190	-.04010	15.28830	.01290	.01580	92.56750	94.00530	15.30370	561.83600
.249	16.342	14.64330	-.02410	-.04260	15.28680	.01480	.01760	92.66230	94.10310	15.30220	562.48100
.248	20.431	14.64550	-.02090	-.03970	15.28660	.01380	.01530	92.31290	93.74270	15.30200	562.56800
	GRADIENT	-.00009	-.00022	-.00015	.00030	.00015	.00019	.05698	.05876	.00031	.17546

OA228 B72C15

(RFLD39) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
 MACH = .250

RUN NO. 39/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.248	-5.161	14.64880	-.01870	-.04370	15.29080	.01370	.01500	92.44470	93.87830	15.30620	563.60100
.248	-2.072	14.64780	-.02270	-.04350	15.28980	.01320	.01500	92.44020	93.87370	15.30520	563.04100
.248	-.023	14.64810	-.02140	-.03990	15.29070	.01370	.01660	92.53770	93.97420	15.30610	564.07400
.248	2.023	14.64870	-.02240	-.03840	15.29100	.01320	.01610	92.48770	93.92260	15.30640	564.16100
.249	5.117	14.64770	-.02370	-.03630	15.29140	.01510	.01740	92.68810	94.12940	15.30680	563.64400
	GRADIENT	.00022	.00007	.00125	.00029	.00000	.00027	.01161	.01195	.00029	.27359

DATE 21 SEP 81

0A228 (NAAL 757) ORBITER FOREBODY

PAGE 44

0A228 B72C15

(RFLD40) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 1.780
 MACH = .250
 RN/L = 4.000

RUN NO. 40/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	O(PSF)	OC	PT27	TT
.249	-5.169	14.64800	-.02050	-.04550	15.29110	.01400	.01610	92.60150	94.04000	15.30650	564.93600
.248	-2.072	14.64810	-.01980	-.04020	15.29010	.01290	.01530	92.44930	93.88310	15.30550	565.28100
.248	-.015	14.64940	-.02440	-.04250	15.29100	.01190	.01400	92.39540	93.82740	15.30640	565.32400
.248	2.026	14.64740	-.02360	-.03950	15.28980	.01430	.01710	92.50300	93.93850	15.30520	565.88400
.248	5.110	14.65040	-.02520	-.03720	15.29290	.01160	.01420	92.53060	93.96670	15.30840	566.14300
	GRADIENT	-.00017	-.00093	.00017	-.00007	.00034	.00044	.01305	.01347	-.00007	.14697

0A228 B72C15

(RFLD41) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 1.780
 MACH = .250
 RN/L = 10.000

RUN NO. 41/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	O(PSF)	OC	PT27	TT
.249	-5.175	14.64650	-.02160	-.04650	15.28870	.01400	.01610	92.48740	93.92250	15.30420	566.35900
.249	-2.071	14.64640	-.02210	-.04330	15.28950	.01320	.01550	92.61500	94.05410	15.30500	566.35900
.248	-.025	14.64660	-.02350	-.04200	15.28950	.01210	.01580	92.58180	94.01980	15.30500	566.74700
.249	2.033	14.64570	-.02330	-.03940	15.28910	.01400	.01710	92.64720	94.08740	15.30460	566.79000
.249	5.120	14.64610	-.02570	-.03780	15.29010	.01420	.01760	92.74030	94.18330	15.30560	566.79000
	GRADIENT	-.00017	-.00029	.00095	-.00010	.00020	.00039	.00787	.00814	-.00010	.10494

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 45

(RFLD42) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 42/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.064	14.63990	-.02130	-.03860	14.96860	.01310	.01230	47.33250	47.71020	14.97380	562.56800
.178	-2.042	14.63910	-.02100	-.03830	14.96750	.01470	.01430	47.28830	47.66530	14.97260	563.17000
.178	-.026	14.63980	-.01960	-.03630	14.96880	.01420	.01490	47.37890	47.75740	14.97400	563.04100
.178	1.987	14.63950	-.02120	-.03800	14.96760	.01420	.01550	47.24360	47.61990	14.97270	563.38500
.179	4.022	14.63860	-.02200	-.03930	14.96790	.01580	.01800	47.41420	47.79320	14.97310	562.86900
.178	6.026	14.64000	-.02160	-.03830	14.96830	.01210	.01390	47.27940	47.65630	14.97350	562.82600
.178	8.058	14.63880	-.02340	-.03970	14.96750	.01420	.01700	47.33600	47.71380	14.97270	563.08400
.178	10.088	14.64110	-.02020	-.03700	14.96910	.00840	.01080	47.23080	47.60690	14.97420	563.34300
.178	12.115	14.63870	-.01910	-.03640	14.96760	.01370	.01600	47.36100	47.73930	14.97280	562.99800
.178	14.122	14.63830	-.02180	-.03910	14.96630	.01320	.01550	47.23000	47.60620	14.97140	562.74000
.178	16.165	14.63700	-.02170	-.03890	14.96600	.01580	.01800	47.37320	47.75370	14.97110	562.52400
.178	20.240	14.63700	-.02240	-.03970	14.96570	.01580	.01800	47.33310	47.71090	14.97080	562.91200
	GRADIENT	-.00009	-.00023	-.00023	.00000	.00016	.00049	.01205	.01224	.00001	-.02783

OA228 B72C15

(RFLD43) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 43/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.100	14.63970	-.01920	-.04170	14.96770	.01370	.01440	47.23190	47.60800	14.97280	561.92200
.178	-2.036	14.63910	-.01910	-.03850	14.96800	.01520	.01540	47.36210	47.74030	14.97320	562.28600
.178	-.018	14.63830	-.02110	-.03840	14.96740	.01740	.01800	47.38440	47.76300	14.97260	562.48100
.178	2.002	14.64000	-.02010	-.03470	14.96810	.01420	.01500	47.24760	47.62400	14.97330	562.18000
.178	5.057	14.63890	-.02230	-.03320	14.96770	.01680	.01800	47.34570	47.72370	14.97290	562.65400
	GRADIENT	.00022	-.00025	.00094	.00002	-.00025	-.00010	-.02836	-.02881	.00002	-.02132

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 46

OA228 B72C15

(RFLD44) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 44/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.102	14.63990	-.01920	-.04230	14.96860	.01310	.01390	47.33990	47.71770	14.97380	562.05100
.179	-2.047	14.63860	-.02000	-.03880	14.96780	.01520	.01750	47.40380	47.78270	14.97300	562.30900
.178	-.019	14.63990	-.02090	-.03760	14.96840	.01320	.01440	47.31550	47.69290	14.97360	561.83600
.178	2.005	14.63930	-.02200	-.03610	14.96780	.01530	.01750	47.30840	47.68570	14.97300	562.13700
.178	5.045	14.64020	-.02130	-.03170	14.96890	.01310	.01490	47.33420	47.71200	14.97410	562.48100
	GRADIENT	.00017	-.00049	.00067	.00000	.00002	-.00000	-.02355	-.02394	.00000	-.04249

OA228 B72C15

(RFLD45) (21 SEP 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 45/ 0 RN/L = 1.15 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PO	CPS1	CPS2	PT	CPT1	CPT2	Q(PSF)	QC	PT27	TT
.178	-5.104	14.64030	-.01820	-.04130	14.96810	.01050	.01190	47.21090	47.58670	14.97330	561.87900
.178	-2.045	14.63900	-.02100	-.04040	14.96740	.01370	.01600	47.28890	47.66600	14.97250	562.09400
.178	-.020	14.63980	-.02110	-.03840	14.96800	.01050	.01340	47.27030	47.64710	14.97320	562.30900
.179	2.002	14.63840	-.02200	-.03610	14.96770	.01520	.01800	47.42280	47.80200	14.97290	562.09400
.178	5.050	14.64010	-.02270	-.03250	14.96830	.01110	.01390	47.26470	47.64140	14.97350	562.48100
	GRADIENT	-.00015	-.00025	.00106	.00007	.00037	.00049	.03308	.03360	.00010	.00003

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 47

(RFLF01) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

PROBES STANDARD

RUN NO. 1/ 0 RN/L = 1.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.178	-5.059	14.79990	14.36550	15.01180	14.67940	14.46990	14.58350	15.02060	14.70430	.04250
.178	-2.028	14.86960	14.44900	14.99050	14.69890	14.50410	14.58660	15.02110	14.70380	.03930
.178	-.012	14.90450	14.50710	14.97040	14.71000	14.52950	14.58730	15.02140	14.70380	.03820
.178	1.996	14.93870	14.55210	14.94450	14.71820	14.55340	14.58910	15.02120	14.70340	.03840
.178	4.026	14.97620	14.58880	14.91440	14.72860	14.58110	14.58570	15.02100	14.70320	.03890
.178	6.031	14.99500	14.62950	14.88020	14.73230	14.60820	14.58130	15.02140	14.70340	.03850
.178	8.060	15.00770	14.67270	14.83900	14.73180	14.63740	14.57900	15.02080	14.70280	.03830
.178	10.098	15.01480	14.71200	14.79800	14.72950	14.66580	14.57880	15.02110	14.70330	.03850
.178	12.119	15.01660	14.75410	14.75330	14.72780	14.69440	14.57710	15.02080	14.70280	.03900
.178	14.153	15.01360	14.79460	14.70850	14.71930	14.72360	14.57710	15.02040	14.70250	.03930
.178	16.161	15.00580	14.83310	14.66060	14.70990	14.75200	14.57410	15.01990	14.70280	.04270
.178	20.239	14.97310	14.90360	14.55370	14.68990	14.80820	14.56580	15.01910	14.70250	.04400
	GRADIENT	.01755	.02302	-.01260	.00487	.01264	-.00005	-.00002	-.00011	-.00005

(RFLF02) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

PROBES STANDARD

RUN NO. 2/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.178	-5.067	14.88550	14.47800	14.92950	14.74080	14.52800	14.52150	15.02150	14.69680	.01750
.178	-.227	14.90170	14.49620	14.95700	14.72010	14.52680	14.56170	15.02120	14.70210	.03530
.178	.000	14.90270	14.50420	14.97020	14.70880	14.52630	14.58540	15.02130	14.70290	.03960
.178	2.025	14.87630	14.50690	14.98260	14.69590	14.52900	14.61620	15.02160	14.70250	.03650
.178	5.065	14.90920	14.51820	14.99670	14.68280	14.53610	14.65770	15.02160	14.69700	.01790
	GRADIENT	-.01197	.00340	.00930	-.00902	.00112	.02065	.00017	.00003	-.00028

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 48

(RFLF03) (20 AUG 81)

PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 3/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.178	-5.068	14.95590	14.58270	14.83280	14.76110	14.57820	14.51630	15.02120	14.69640	.01780
.178	-.229	14.96800	14.57680	14.89240	14.74110	14.57990	14.55620	15.02070	14.70220	.03580
.178	-.001	14.97700	14.58880	14.91390	14.72790	14.58010	14.58350	15.02170	14.70270	.04010
.178	2.025	14.98130	14.59910	14.93090	14.71520	14.58750	14.61300	15.02120	14.70320	.03640
.178	5.065	14.96690	14.61730	14.95480	14.69300	14.58590	14.65600	15.02200	14.69700	.01880
	GRADIENT	.00441	.00800	.01365	-.00943	.00348	.02100	.00004	.00037	-.00056

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 4/ 0 RN/L = 1.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.178	-5.071	15.00870	14.70390	14.73080	14.77020	14.66610	14.51100	15.02100	14.69540	.01540
.178	-.231	15.01250	14.70780	14.77080	14.74510	14.66530	14.54890	15.02100	14.70100	.03400
.178	-.002	15.01450	14.71250	14.79730	14.72920	14.66540	14.57800	15.02080	14.70270	.03800
.178	2.024	15.01600	14.71740	14.82170	14.71250	14.66440	14.60570	15.02050	14.70100	.03680
.178	5.065	15.01860	14.72770	14.85860	14.68920	14.66580	14.65270	15.02140	14.69550	.01870
	GRADIENT	.00123	.00353	.01842	-.01201	-.00044	.02065	-.00019	-.00033	.00052

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 49

(RFLF05) (20 AUG 81)

PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YHRP = .0000 IN. YO
BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA
BETA = .000 RN/L = 1.780
MACH = .250

RUN NO. 5/ 0 RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.248	-5.146	15.03400	14.05510	15.33010	14.66700	14.24690	14.48010	15.34860	14.72140	.04140
.248	-2.105	15.04990	14.22580	15.28620	14.70450	14.31630	14.48670	15.34790	14.72040	.03890
.248	-.071	15.11610	14.34210	15.24530	14.72880	14.36510	14.48730	15.34690	14.71940	.03940
.248	1.970	15.17960	14.42660	15.19620	14.75220	14.41990	14.48870	15.34850	14.72000	.03750
.248	4.026	15.26130	14.49660	15.13590	14.77120	14.47590	14.48370	15.34870	14.71980	.03750
.248	6.068	15.29770	14.57530	15.06360	14.77620	14.53330	14.47700	15.34790	14.71870	.03770
.248	8.126	15.32340	14.65700	14.98510	14.77510	14.59050	14.47560	15.34820	14.71840	.03640
.248	10.188	15.33630	14.74600	14.89720	14.76520	14.64630	14.47110	15.34740	14.71780	.03810
.248	12.233	15.33990	14.82540	14.80960	14.76300	14.70430	14.47160	15.34770	14.71790	.03720
.248	14.279	15.33360	14.90540	14.71520	14.74710	14.76250	14.46800	15.34670	14.71730	.03780
.248	16.348	15.31720	14.98460	14.61380	14.73100	14.82240	14.46390	15.34610	14.71850	.04140
.248	20.431	15.25150	15.12120	14.43920	14.69710	14.93320	14.45630	15.34460	14.72160	.04240
GRADIENT		.03414	.04388	-.02447	.01094	.02611	-.00037	.00020	-.00006	-.00030

PROBES STANDARD

(RFLF06) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XHRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YHRP = .0000 IN. YO
BREF = 936.6800 IN. ZHRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA
ALPHA = .000 RN/L = 1.780
MACH = .250

RUN NO. 6/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.248	-5.132	15.08470	14.28410	15.14310	14.78640	14.37020	14.34680	15.35000	14.70670	.01690
.248	-.250	15.11750	14.32030	15.22010	14.75110	14.37170	14.43460	15.34790	14.71770	.03340
.248	.000	15.11970	14.34040	15.24570	14.72980	14.36650	14.48540	15.34730	14.71910	.03830
.248	2.050	15.06500	14.34350	15.26990	14.70340	14.36920	14.54930	15.34810	14.71820	.03540
.248	5.130	15.13240	14.36320	15.30010	14.68030	14.37860	14.63620	15.34980	14.70840	.01820
GRADIENT		-.02432	.00678	.01785	-.01771	-.00016	.04266	.00020	-.00004	-.00001

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 50

(RFLF07) (20 AUG 81)

PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000
 ALPHA = 4.000 RN/L = 1.780
 MACH = .250

PARAMETRIC DATA

RUN NO.		7/ 0	RN/L = 1.66	GRADIENT INTERVAL = -5.00/ 5.00	
MACH	BETA	PAC	PAL	PAU	PMA
.248	-5.135	15.22670	14.48900	14.97140	14.83490
.248	-.253	15.24910	14.47400	15.09010	14.79740
.248	.000	15.26390	14.49660	15.13280	14.77050
.248	2.050	15.27050	14.52040	15.16870	14.74310
.248	5.131	15.24000	14.55790	15.21680	14.70330
	GRADIENT	.00695	.01686	.02773	-.01964
				.00387	.04085
					.00006
					.00002
					.01530
					.03430
					.03840
					.03670
					.01800
					.00032

PFA 14.47940
 PFB 14.34570
 PTF 15.35060
 PMF 14.70760
 CPMF .01530

(RFLF08) (20 AUG 81)

PROBES STANDARD

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000
 ALPHA = 10.000 RN/L = 1.780
 MACH = .250

PARAMETRIC DATA

RUN NO.		8/ 0	RN/L = 1.65	GRADIENT INTERVAL = -5.00/ 5.00	
MACH	BETA	PAC	PAL	PAU	PMA
.248	-5.143	15.32620	14.73060	14.76390	14.85270
.248	-.264	15.33210	14.73570	14.84240	14.80020
.248	-.004	15.33730	14.74480	14.89750	14.76850
.248	2.050	15.33990	14.75610	14.94720	14.73610
.248	5.133	15.34480	14.77460	15.02460	14.68820
	GRADIENT	.00257	.00755	.03722	-.02314
				.04233	.00044
					.00010
					.00008
					.01480
					.03360
					.03670
					.03430
					.01770
					-.00026

PFA 14.65220
 PFB 14.33620
 PTF 15.34910
 PMF 14.70470
 CPMF .01480

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 51

(RFLF09) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

BETA = .000 RN/L = 1.780
 MACH = .250

PROBES STANDARD

PARAMETRIC DATA

RUN NO. 9/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.248	-5.168	15.03500	14.05360	15.33190	14.66830	14.24850	14.47970	15.34960	14.72220	.04040
.248	-2.084	15.05030	14.22650	15.28880	14.70560	14.31550	14.48570	15.34920	14.72070	.03920
.248	-.040	15.11880	14.34820	15.24700	14.73100	14.36820	14.48780	15.34960	14.72080	.03870
.248	1.985	15.19120	14.42960	15.19620	14.75360	14.42560	14.49160	15.35040	14.72090	.03720
.248	4.032	15.26170	14.49680	15.13420	14.77110	14.47580	14.48270	15.34890	14.72010	.03860
.248	6.108	15.30180	14.57990	15.06310	14.78000	14.54020	14.48170	15.35100	14.72210	.03630
.248	8.129	15.32520	14.65940	14.98630	14.77760	14.59380	14.48000	15.34980	14.72030	.03650
.248	10.190	15.33920	14.74920	14.89720	14.76940	14.65210	14.47590	15.35030	14.72020	.03660
.248	12.218	15.34130	14.82710	14.80870	14.76620	14.70730	14.47380	15.34930	14.71970	.03660
.248	14.291	15.33570	14.90830	14.71670	14.74850	14.76620	14.47300	15.34910	14.71870	.03790
.248	16.337	15.31840	14.98520	14.61930	14.73220	14.82280	14.46870	15.34730	14.71980	.04170
.248	20.448	15.25250	15.12410	14.43510	14.69560	14.93790	14.46200	15.34710	14.72130	.04220
GRADIENT		.03468	.04380	-.02526	.01075	.02642	-.00026	-.00001	-.00008	-.00016

(RFLF10) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

BETA = .000 RN/L = 1.780
 MACH = .250

PROBES STANDARD

PARAMETRIC DATA

RUN NO. 10/ 0 RN/L = 1.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.248	-5.156	15.03580	14.04280	15.33360	14.66830	14.24910	14.48090	15.35010	14.72440	.04040
.248	-2.091	15.05140	14.21150	15.29100	14.70940	14.31520	14.48480	15.35000	14.72240	.03880
.248	-.043	15.12090	14.33050	15.24980	14.73290	14.36680	14.48520	15.35050	14.72110	.03860
.248	1.970	15.18700	14.43100	15.19820	14.75570	14.42280	14.49050	15.35010	14.72220	.03780
.248	4.022	15.26320	14.50470	15.13710	14.77420	14.47940	14.48680	15.34940	14.72100	.03790
.248	8.141	15.32490	14.66870	14.98630	14.77770	14.59510	14.47990	15.34910	14.72020	.03700
.248	10.196	15.33890	14.75630	14.90110	14.76950	14.65110	14.47990	15.34980	14.72090	.03740
.248	12.233	15.34200	14.83380	14.81440	14.76580	14.70730	14.47670	15.34960	14.71990	.03730
.248	14.290	15.33510	14.91260	14.72240	14.76590	14.76590	14.47370	15.34800	14.71950	.03790
.248	16.346	15.31900	14.98980	14.62860	14.73390	14.82670	14.47490	15.34750	14.72100	.04080
.248	20.444	15.25310	15.12570	14.44380	14.69660	14.93880	14.46650	15.34560	14.72250	.04380
GRADIENT		.03447	.04815	-.02522	.01067	.02696	.00057	-.00011	-.00015	-.00017

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 52

(RFLF11) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = .000 RN/L = 1.780
 MACH = .250

PARAMETRIC DATA

RUN NO. 11/ 0 RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.248	-5.133	15.08050	14.28960	15.14450	14.78950	14.36350	14.34550	15.35080	14.70790	.01710
.248	-2.050	15.11690	14.32490	15.22300	14.75360	14.36910	14.43360	15.35010	14.71930	.03360
.248	.002	15.11930	14.32780	15.25030	14.73470	14.36740	14.48740	15.35000	14.72220	.03810
.248	2.025	15.06380	14.33030	15.27520	14.70900	14.37160	14.55040	15.35110	14.72090	.03410
.248	5.079	15.13050	14.34990	15.30590	14.68580	14.37870	14.63620	15.35280	14.71100	.01810
	GRADIENT	-.01300	.00133	.01281	-.01094	.00061	.02865	.00024	.00039	.00013

(RFLF12) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

ALPHA = .000 RN/L = 1.780
 MACH = .250

PARAMETRIC DATA

RUN NO. 12/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.248	-5.136	15.22500	14.49630	14.97340	14.83690	14.47770	14.34240	15.35190	14.70820	.01540
.248	-2.028	15.24970	14.48190	15.09090	14.79860	14.47760	14.42430	15.35030	14.71890	.03570
.248	-.024	15.26400	14.50560	15.13570	14.77540	14.48050	14.48510	15.34990	14.72170	.03740
.248	2.026	15.27220	14.52520	15.17090	14.74730	14.48620	14.53960	15.35060	14.72120	.03690
.248	5.058	15.24450	14.55760	15.22000	14.70930	14.48630	14.63400	15.35150	14.71130	.01620
	GRADIENT	.00554	.01068	.01972	-.01266	.00212	.02843	.00008	.00056	.00029

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 53

REFERENCE DATA

SREF	=	2690.0000	SO.FT.	XMRP	=	1076.6900	IN.	XO
LREF	=	474.8100	IN.	YMRP	=	.0000	IN.	YO
BREF	=	936.6800	IN.	ZMRP	=	375.0000	IN.	ZO
SCALE	=	.1000						

PROBES STANDARD

(RFLF13)

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
MACH = .250

	BETA	PAC	PAL	PAU	PMA	PFA	PFB	
MACH .248	-5.141	15.32970	14.74220	14.76890	14.85550	14.65610	14.34230	PT
.248	-2.062	15.33700	14.74980	14.84940	14.80760	14.65740	14.42120	15.3
.248	-.026	15.34100	14.75900	14.90080	14.77250	14.65430	14.47960	15.3
.248	2.026	15.34490	14.76920	14.95270	14.74100	14.65300	14.53860	15.3
.248	5.085	15.34700	14.78350	15.02930	14.69220	14.65370	14.63400	15.3
	GRADIENT	.00193	.00474	.02526	-.01628	-.00108	.02870	.0
	RUN NO.	13/ 0	RN/L = 1.64	GRADIENT INTERVAL = -5.00/ 5.00				

REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1075.6800	IN.	XO
LREF	=	474.8100	IN.	YMRP	=	.0000	IN.	YO
BREF	=	935.6800	IN.	ZMRP	=	375.0000	IN.	ZO
SCALE	=	.1000						

PROBES STANDARD

(RFLFI4)

PARAMETRIC DATA

ALPHA	=	.000	RN/L	=	1.270
MACH	=	.180			

	BETA	PAC	PAL	PAU	PMA	PFA	PFB	P
MACH	.178							
	-5.065	14.88810	14.48430	14.93050	14.74510	14.53170	14.52400	15.0
	-2.025	14.90550	14.49880	14.95890	14.72350	14.52830	14.56230	15.0
	-.025	14.90680	14.50220	14.97240	14.71240	14.52990	14.58680	15.0
	2.001	14.88050	14.50890	14.98480	14.70060	14.53440	14.62170	15.0
	5.016	14.91260	14.51890	14.99890	14.68570	14.53870	14.66050	15.0
GRADIENT	-.00622	.00251	.00643	.00569	.00152		.01476	.0
RUN NO.	14/ 0	RN/L = 1.17	GRADIENT INTERVAL = -5.00/	5.00/				

PMF	CPMF
14.69870	.01660
14.70340	.03650
14.70520	.04060
14.70510	.03570
14.69900	.01930
.00042	-.00020

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 54

OA228 B72C15PR4 PR7 PR8 PROBES STANDARD

(RFLF15) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
 MACH = .180

RUN NO. 15/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.178	-5.067	14.95940	14.59230	14.83500	14.78560	14.58210	14.51800	15.02340	14.69870	.01710
.178	-2.026	14.97170	14.58560	14.83360	14.74390	14.58160	14.55760	15.02280	14.70370	.03740
.178	-.024	14.97990	14.59720	14.91530	14.73260	14.58490	14.58740	15.02310	14.70580	.03880
.178	2.001	14.98310	14.60670	14.93280	14.71740	14.58930	14.61530	15.02250	14.70450	.03790
.178	5.015	14.97030	14.61940	14.95700	14.68650	14.58910	14.65920	15.02310	14.69950	.01970
	GRADIENT	.00283	.00524	.00973	-.00658	.00191	.01433	-.00007	.00020	.00012

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
 MACH = .180

RUN NO. 16/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA	PFA	PFB	PTF	PMF	CPMF
.178	-5.070	15.01150	14.71360	14.73050	14.77320	14.66990	14.51530	15.02280	14.69770	.01500
.178	-2.031	15.01420	14.71880	14.77080	14.74800	14.66960	14.55280	15.02210	14.70270	.03410
.177	.000	15.01670	14.72370	14.79760	14.73270	14.66870	14.58290	15.02230	14.70500	.03840
.178	2.001	15.01950	14.72820	14.82390	14.71560	14.66680	14.61000	15.02350	14.70230	.03460
.178	5.016	15.02060	14.73650	14.86050	14.69300	14.67020	14.65800	15.02300	14.69810	.01780
	GRADIENT	.00131	.00233	.01317	-.00803	-.00045	.01419	.00035	-.00010	.00013

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 55

(RFLF17) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 17/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA
.178	-5.095	14.80450	14.36340	15.01450	14.68430
.178	-2.080	14.87910	14.44660	14.99390	14.70170
.178	-.061	14.91950	14.50240	14.97260	14.71220
.178	1.961	14.95390	14.55420	14.94720	14.72300
.178	3.981	14.97920	14.59540	14.91590	14.73100
.178	6.017	14.99870	14.63590	14.88110	14.73400
.178	8.039	15.01120	14.67880	14.84210	14.73460
.178	10.049	15.01780	14.72180	14.79900	14.73230
.178	12.105	15.01890	14.76100	14.75520	14.73030
.178	14.123	15.01610	14.79980	14.71120	14.72090
.178	16.131	15.00870	14.83880	14.66160	14.71310
.178	20.205	14.97550	14.90860	14.56850	14.69300
	GRADIENT	.01657	.02466	-.01284	.00489

(RFLF18) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.270
 MACH = .180

RUN NO. 18/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.178	-5.090	14.88860	14.49290	14.93620	14.74380
.178	-2.051	14.90660	14.49690	14.95940	14.72400
.178	-.023	14.91860	14.50080	14.97260	14.71210
.178	1.976	14.93110	14.50670	14.98430	14.70150
.178	5.040	14.94730	14.51650	14.99910	14.68340
	GRADIENT	.00608	.00243	.00618	-.00559

DATE 21 SEP 81

0A228 (NAAL 757) ORBITER FOREBODY

PAGE 56

(RFLF19) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
MACH = .180

RUN NO. 19/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.178	-5.092	14.96030	14.57820	14.86540	14.76550
.178	-2.026	14.97230	14.58730	14.89640	14.74310
.178	-.024	14.97960	14.59620	14.91590	14.73180
.178	1.976	14.98630	14.60670	14.93210	14.71860
.178	5.065	14.99480	14.61870	14.95630	14.69590
	GRADIENT	.00350	.00485	.00892	-.00612

0A228 872C15 PR7 PR8 PROBES STANDARD

(RFLF20) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
MACH = .180

RUN NO. 20/ 0 RN/L = 1.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.178	-5.095	15.01120	14.71140	14.73080	14.77250
.178	-2.080	15.01580	14.71850	14.77130	14.74820
.178	-.026	15.01750	14.72180	14.79830	14.73260
.178	1.976	15.01850	14.72670	14.82300	14.71540
.178	5.040	15.02050	14.73520	14.86050	14.69270
	GRADIENT	.00067	.00202	.01275	-.00808

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 57

(RFLF21) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8100 IN.
 BREF = 936.6800 IN.
 SCALE = .1000

XMRP = 1076.6800 IN. XO
 YMRP = .0000 IN. YO
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

BETA = .000
 MACH = .250
 RN/L = 1.780

RUN NO. 21/ 0 RN/L = 1.54 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA
.248	-5.201	15.03940	14.05060	15.33600	14.67110
.248	-2.137	15.06550	14.21300	15.29660	14.71120
.248	-.096	15.14420	14.32510	15.25400	14.73010
.248	1.954	15.21610	14.43200	15.20080	14.75710
.248	3.993	15.26640	14.50680	15.13930	14.77770
.248	6.056	15.30420	14.58650	15.06820	14.78260
.248	8.097	15.32970	14.67210	14.99080	14.78250
.248	10.157	15.34270	14.76040	14.90390	14.77200
.248	12.203	15.34550	14.83840	14.81720	14.76990
.248	14.237	15.33930	14.91590	14.72840	14.75310
.248	20.402	15.25640	15.13000	14.44740	14.69980
	GRADIENT	.03301	.04836	-.02569	.01108

OA228 B72C15 PR7 PR8 PROBES STANDARD

(RFLF22) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8100 IN.
 BREF = 936.6800 IN.
 SCALE = .1000

XMRP = 1076.6800 IN. XO
 YMRP = .0000 IN. YO
 ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

ALPHA = .000
 MACH = .250
 RN/L = 1.780

RUN NO. 22/ 0 RN/L = 1.53 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.248	-5.181	15.08600	14.31270	15.18000	14.79190
.248	-2.076	15.12490	14.33290	15.22450	14.75680
.248	-.024	15.14780	14.32870	15.25320	14.73440
.248	2.001	15.17210	14.33260	15.27720	14.71120
.248	5.105	15.20670	14.35350	15.30640	14.68200
	GRADIENT	.01158	-.00008	.01293	-.01118

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 58

(RFLF23) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 23/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.248	-5.185	15.22920	14.46970	15.03940	14.84020
.248	-2.102	15.23280	14.49010	15.10150	14.80240
.248	-.024	15.26810	14.50800	15.13660	14.77830
.248	2.002	15.28030	14.52780	15.17330	14.75120
.248	5.106	15.29850	14.55800	15.22300	14.70970
	GRADIENT	.00670	.00918	.01750	-.01247

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 24/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.248	-5.191	15.33240	14.74200	14.77270	14.86050
.248	-2.083	15.33940	14.75280	14.84810	14.80730
.248	-.025	15.34340	14.76180	14.90280	14.77460
.248	2.003	15.34520	14.77100	14.95300	14.74120
.248	5.084	15.34940	14.78740	15.02910	14.69450
	GRADIENT	.00142	.00445	.02567	-.01618

(RFLF24) (20 AUG 81)

DATE 21 SEP 81

0A228 (NAAL 757) ORBITER FOREBODY

PAGE 59

(RFLF25) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 474.8100 IN.
BREF = 936.6800 IN.
SCALE = .1000

XMRP = 1076.6800 IN. XO
YMRP = .0000 IN. YO
ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
MACH = .250

RUN NO. 25/ 0 RN/L = 1.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA
.248	-5.185	15.00020	13.99270	15.29860	14.56520
.248	-2.108	15.05140	14.15680	15.25870	14.61740
.248	-.075	15.12800	14.26780	15.21720	14.65080
.248	1.956	15.19070	14.38010	15.16700	14.69210
.248	4.007	15.23620	14.45150	15.10600	14.72370
.248	6.058	15.27050	14.52630	15.03630	14.73020
.248	8.129	15.29490	14.61000	14.95970	14.73480
.248	10.182	15.30640	14.69550	14.87320	14.73520
.248	12.213	15.30840	14.77180	14.78610	14.73530
.248	14.259	15.30260	14.85330	14.69250	14.72490
.248	16.298	15.28540	14.92990	14.59480	14.71840
.248	20.424	15.21450	15.07300	14.40420	14.69380
	GRADIENT	.03028	.04889	-.02495	.01768

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 474.8100 IN.
BREF = 936.6800 IN.
SCALE = .1000

XMRP = 1076.6800 IN. XO
YMRP = .0000 IN. YO
ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

ALPHA = .000 RN/L = 1.780
MACH = .250

RUN NO. 26/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.248	-5.156	15.18080	14.29680	15.26660	14.61660
.248	-2.049	15.15020	14.27270	15.24050	14.63400
.248	.001	15.12980	14.26660	15.21770	14.65140
.248	2.026	15.10620	14.26610	15.19170	14.67220
.248	5.131	15.07140	14.25610	15.14570	14.70890
	GRADIENT	-.01079	-.00162	-.01197	.00937

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 60

(RFLF27) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.780
 MACH = .250

RUN NO. 27/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PHA
.248	-5.158	15.26680	14.50330	15.18660	14.65930
.248	-2.052	15.25010	14.47410	15.14000	14.69920
.248	.002	15.23740	14.45080	15.10550	14.72420
.248	2.027	15.22790	14.43400	15.07190	14.74960
.248	5.130	15.20160	14.40660	15.01310	14.77600
	GRADIENT	-.00544	-.00983	-.01670	.01236

OA228 B72C15 PR7R PRBL PROBES REVERSED

(RFLF28) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.780
 MACH = .250

RUN NO. 28/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PHA
.248	-5.166	15.31240	14.72890	14.99730	14.66090
.248	-2.087	15.30830	14.70640	14.92740	14.70380
.248	-.027	15.30680	14.69600	14.87870	14.73510
.248	2.028	15.30320	14.68530	14.82540	14.76610
.248	5.133	15.29530	14.67490	14.74560	14.81590
	GRADIENT	-.00124	-.00513	-.02479	.01514

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 61

(RFLF29) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

BETA = .000
 MACH = .180
 RN/L = 1.270

RUN NO. 29/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PMA
.178	-5.073	14.78590	14.32290	14.97440	14.61240
.178	-2.069	14.85390	14.40210	14.95530	14.63970
.178	-.036	14.89140	14.45630	14.93430	14.65560
.178	1.977	14.92170	14.50780	14.90930	14.66920
.178	3.998	14.94550	14.55020	14.87820	14.68650
.178	6.017	14.96190	14.58650	14.84520	14.68840
.178	8.049	14.97400	14.62990	14.80670	14.69410
.178	10.068	14.97970	14.67110	14.76540	14.69540
.178	12.091	14.98080	14.70960	14.72230	14.69510
.178	14.123	14.97810	14.75090	14.67490	14.68850
.178	16.140	14.97050	14.79010	14.62750	14.68490
.178	20.207	14.93350	14.86150	14.53280	14.66890
	GRADIENT	.01510	.02453	-.01268	.00777

(RFLF30) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
 LREF = 474.8100 IN. YMRP = .0000 IN. YO
 BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
 SCALE = .1000

PARAMETRIC DATA

ALPHA = .000
 MACH = .180
 RN/L = 1.270

RUN NO. 30/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.178	-5.090	14.91550	14.47180	14.95930	14.62930
.178	-2.050	14.90150	14.46100	14.94570	14.64420
.178	-.023	14.89260	14.45630	14.93500	14.65520
.178	2.001	14.88070	14.45310	14.92110	14.66640
.178	5.065	14.86310	14.44870	14.89910	14.68370
	GRADIENT	-.00513	-.00195	-.00607	.00548

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 62

(RFLF31) (20 AUG 81)

OA228 B72C15 PR7R PR8L PROBES REVERSED

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 4.000 RN/L = 1.270
MACH = .180

RUN NO. 31/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.178	-5.092	14.96040	14.57380	14.91960	14.65330
.178	-2.026	14.95050	14.56050	14.89620	14.67270
.178	.001	14.94590	14.55120	14.88020	14.68730
.178	2.001	14.93840	14.53920	14.86190	14.69740
.178	5.064	14.92730	14.52790	14.83220	14.71580
	GRADIENT	-.00300	-.00529	-.00852	.00614

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

ALPHA = 10.000 RN/L = 1.270
MACH = .180

RUN NO. 32/ 0 RN/L = 1.16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PMA
.178	-5.094	14.98290	14.68810	14.82460	14.65810
.178	-2.028	14.98210	14.67750	14.79090	14.67940
.178	.000	14.98030	14.67180	14.76540	14.69480
.178	2.001	14.97770	14.66630	14.73860	14.71000
.178	5.066	14.97460	14.66080	14.69920	14.73360
	GRADIENT	-.00109	-.00278	-.01298	.00759

DATE 21 SEP 81

0A228 (NAAL 757) ORBITER FOREBODY

PAGE 63

(RFLF33) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO
LREF = 474.8100 IN. YMRP = .0000 IN. YO
BREF = 936.6800 IN. ZMRP = 375.0000 IN. ZO
SCALE = .1000

PARAMETRIC DATA

BETA = .000 RN/L = 1.780
MACH = .250

RUN NO. 33/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PHA
.248	-5.183	14.99800	13.99040	15.29620	14.56720
.248	-2.125	15.05270	14.15350	15.25820	14.62050
.247	-.076	15.12670	14.26630	15.21590	14.65360
.247	1.978	15.19100	14.37950	15.16490	14.69540
.247	4.009	15.23500	14.44850	15.10720	14.72730
.248	6.063	15.26870	14.52100	15.03640	14.72940
.247	8.092	15.29350	14.60930	14.95990	14.73680
.247	10.164	15.30500	14.69390	14.87520	14.73780
.248	12.226	15.30720	14.77300	14.78910	14.73760
.248	14.247	15.30090	14.85250	14.69630	14.72600
.248	16.301	15.28380	14.93100	14.59880	14.71990
.248	20.418	15.21240	15.07550	14.40870	14.69510
	GRADIENT	.02989	.04881	-.02464	.01771

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 64

OA228 B72C15 PR7RMPRBLM PROBES REV. MOD.

(RFLF34) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 474.8100 IN.
BREF = 936.6800 IN.
SCALE = .1000

XMRP = 1076.6800 IN. XO
YMRP = .0000 IN. YO
ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

BETA =
MACH = 1.780
RN/L = .250

RUN NO. 34/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	PAC	PAL	PAU	PHA
.249	-5.156	14.98690	13.96050	15.28660	14.53860
.248	-2.101	15.01270	14.13050	15.24960	14.59030
.248	-.054	15.09470	14.24120	15.20950	14.63090
.249	1.979	15.16360	14.35630	15.16020	14.67250
.248	4.043	15.21160	14.42940	15.10100	14.70390
.248	6.075	15.25050	14.50400	15.03310	14.71430
.248	8.119	15.27760	14.56810	14.95840	14.73220
.248	10.160	15.29170	14.66980	14.88060	14.72540
.248	12.227	15.29660	14.75220	14.79400	14.73170
.249	14.286	15.29310	14.83620	14.70020	14.72640
.249	16.321	15.28050	14.91670	14.60210	14.71100
.248	20.451	15.22190	15.06050	14.41950	14.69240
	GRADIENT	.03251	.04943	-.02419	.01868

OA228 B72C15 PR7RMPRBLM PROBES REV. MOD.

(RFLF35) (20 AUG 81)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 474.8100 IN.
BREF = 936.6800 IN.
SCALE = .1000

XMRP = 1076.6800 IN. XO
YMRP = .0000 IN. YO
ZMRP = 375.0000 IN. ZO

PARAMETRIC DATA

ALPHA =
MACH = 1.780
RN/L = .250

RUN NO. 35/ 0 RN/L = 1.62 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PHA
.248	-5.182	15.14950	14.27020	15.25790	14.59600
.249	-2.097	15.11840	14.24780	15.22970	14.60970
.248	-.033	15.09630	14.23980	15.20820	14.62810
.249	2.015	15.06980	14.23790	15.18370	14.64770
.248	5.112	15.03350	14.23270	15.13880	14.68260
	GRADIENT	-.01162	-.00241	-.01119	.00924

DATE 21 SEP 81

OA228 (NAAL 757) ORBITER FOREBODY

PAGE 65

(RFLF36) (20 AUG 81)

REFERENCE DATA

SREF = 2680.0000 SQ.FT.
LREF = 474.8100 IN.
BREF = 938.6800 IN.
SCALE = .1000

PARAMETRIC DATA
XMRP = 1076.6800 IN. XO
YMRP = .0000 IN. YO
ZMRP = 375.0000 IN. ZO
ALPHA =
MACH = 1.780

RUN NO. 36/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PHA
.248	-5.179	15.24340	14.48110	15.17810	14.64120
.249	-2.084	15.22470	14.45250	15.13140	14.67730
.249	-.042	15.21120	14.42860	15.09930	14.70370
.248	2.011	15.19730	14.40860	15.06280	14.72510
	5.106	15.17500	14.38500	15.00610	14.75650
	GRADIENT	-.00669	-.01072	-.01676	.01167

OA228 B72C15 PR7MRPRLM PROBES REV. MOD.

(RFLF37) (20 AUG 81)

REFERENCE DATA

SREF = 2680.0000 SQ.FT.
LREF = 474.8100 IN.
BREF = 936.6800 IN.
SCALE = .1000

PARAMETRIC DATA

ALPHA =
MACH = 1.780

RUN NO. 37/ 0 RN/L = 1.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	PAC	PAL	PAU	PHA
.248	-5.170	15.29710	14.70690	14.99150	14.64960
.248	-2.076	15.29400	14.68570	14.92500	14.69300
.248	-.025	15.29180	14.67280	14.87800	14.72430
.248	2.033	15.28680	14.66390	14.82570	14.75490
.248	5.115	15.27890	14.65340	14.74450	14.80460
	GRADIENT	-.00175	-.00530	-.02416	.01506

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